

# disklavier™

Disklavier Control Unit DKC-850

Operation manual  
Manuel de l'utilisateur  
Bedienungsanleitung



# SPECIAL MESSAGE SECTION

This product utilizes an external power supply (adaptor). DO NOT connect this product to any power supply or adaptor other than one described in the manual, on the name plate, or specifically recommended by Yamaha.

**IMPORTANT NOTICE:** All Yamaha electronic products are tested and approved by an independent safety testing laboratory in order that you may be sure that when it is properly installed and used in its normal and customary manner, all foreseeable risks have been eliminated. DO NOT modify this unit or commission others to do so unless specifically authorized by Yamaha. Product performance and/or safety standards may be diminished. Claims filed under the expressed warranty may be denied if the unit is/has been modified. Implied warranties may also be affected.

**SPECIFICATIONS SUBJECT TO CHANGE:** The information contained in this manual is believed to be correct at the time of printing. However, Yamaha reserves the right to change or modify any of the specifications without notice or obligation to update existing units.

**ENVIRONMENTAL ISSUES:** Yamaha strives to produce products that are both user safe and environmentally friendly. We sincerely believe that our products and the production methods used to produce them, meet these goals. In keeping with both the letter and the spirit of the law, we want you to be aware of the following:

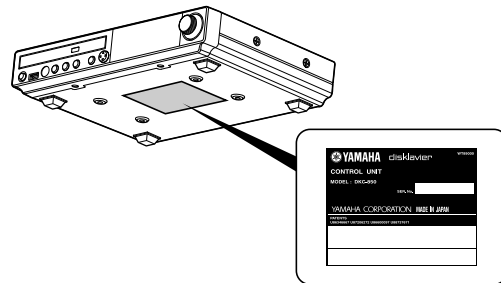
**Battery Notice:** This product MAY contain a small non-rechargeable battery which (if applicable) is soldered in place. The average life span of this type of battery is approximately five years. When replacement becomes necessary, contact a qualified service representative to perform the replacement.

**Warning:** Do not attempt to recharge, disassemble, or incinerate this type of battery. Keep all batteries away from children. Dispose of used batteries promptly and as regulated by applicable laws. Note: In some areas, the servicer is required by law to return the defective parts. However, you do have the option of having the servicer dispose of these parts for you.

**Disposal Notice:** Should this product become damaged beyond repair, or for some reason its useful life is considered to be at an end, please observe all local, state, and federal regulations that relate to the disposal of products that contain lead, batteries, plastics, etc.

**NOTICE:** Service charges incurred due to lack of knowledge relating to how a function or effect works (when the unit is operating as designed) are not covered by the manufacturer's warranty, and are therefore the owners responsibility. Please study this manual carefully and consult your dealer before requesting service.

**NAME PLATE LOCATION:** The graphic below indicates the location of the name plate. The model number, serial number, power requirements, etc., are located on this plate. You should record the model number, serial number, and the date of purchase in the spaces provided below and retain this manual as a permanent record of your purchase.



Model \_\_\_\_\_

Serial No. \_\_\_\_\_

Purchase Date \_\_\_\_\_

## PLEASE KEEP THIS MANUAL

## IMPORTANT NOTICE FOR THE UNITED KINGDOM

### Applies to Power Adaptor Connecting the Plug and Cord

#### IMPORTANT

THE WIRES IN THE MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE:

BLUE : NEUTRAL  
BROWN : LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

Making sure that neither core is connected to the earth terminal of the three pin plug.

**CAUTION**—Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

**ATTENTION**—L'utilisation de commandes ou de réglages, ou l'exécution de procédures, autres que celles qui sont spécifiées ici peuvent conduire à une exposition à des rayonnements dangereux.

**VORSICHT**—Die Verwendung von Bedienungselementen oder Einstellungen, oder die Anwendung von Verfahren, die nicht in dieser Anleitung angegeben sind, kann zu gefährlicher Freisetzung von Strahlung führen.

The control unit is classified as a Class 1 laser product. One of the labels below is located on the inside of the CD drive unit.

L'unité de commande est classée produit laser de Classe 1. Une des étiquettes ci-dessous ou une étiquette similaire se trouve à l'intérieur du lecteur de CD.

Die Steuereinheit ist als ein Lasergerät der Klasse 1 eingestuft. Eins der nachstehend abgebildeten Etiketts bzw. ein Etikett ähnlichen Inhalts befindet sich im Inneren des CD-Laufwerks.

CLASS 1 LASER PRODUCT  
LASER KLASSE 1  
1类激光产品

CAUTION - CLASS 3B VISIBLE AND INVISIBLE LASER RADIATION  
WHEN OPEN.  
AVOID EXPOSURE TO THE BEAM.  
VORSICHT - SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG  
KLASSE 3B, WHEN GEÖFFNET.  
NICHT DEM STRAHL AUSSETZEN.  
注意 - 打开时有3B类可见及不可见激光辐射  
避免光束照射

#### Laser Diode Properties

- \* Material: GaAlAs
- \* Wavelength: 783 nm
- \* Laser Output Power at the lens of the Laser Pickup Unit: max. 130.7 mW

#### Propriétés de la diode à semi-conducteur

- \* Matériau : GaAlAs
- \* Longueur d'ondes : 783 nm
- \* Puissance de sortie laser à la lentille du capteur laser : 130.7 mW max.

#### Eigenschaften der Laserdiode

- \* Werkstoff: GaAlAs
- \* Wellenlänge: 783 nm
- \* Laserausgangsleistung an Abtasterlinse: 130.7 mW max.

## Information for Users on Collection and Disposal of Old Equipment and used Batteries



These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries should not be mixed with general household waste.

For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points, in accordance with your national legislation and the Directives 2002/96/EC and 2006/66/EC.

By disposing of these products and batteries correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.

For more information about collection and recycling of old products and batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.



### [For business users in the European Union]

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

### [Information on Disposal in other Countries outside the European Union]

These symbols are only valid in the European Union. If you wish to discard these items, please contact your local authorities or dealer and ask for the correct method of disposal.



### Note for the battery symbol (bottom two symbol examples):

This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.

**Cd**

## Information concernant la Collecte et le Traitement des piles usagées et des déchets d'équipements électriques et électroniques



Les symboles sur les produits, l'emballage et/ou les documents joints signifient que les produits électriques ou électroniques usagés ainsi que les piles ne doivent pas être mélangés avec les déchets domestiques habituels.

Pour un traitement, une récupération et un recyclage appropriés des déchets d'équipements électriques et électroniques et des piles usagées, veuillez les déposer aux points de collecte prévus à cet effet, conformément à la réglementation nationale et aux Directives 2002/96/EC et 2006/66/EC.

En vous débarrassant correctement des déchets d'équipements électriques et électroniques et des piles usagées, vous contribuerez à la sauvegarde de précieuses ressources et à la prévention de potentiels effets négatifs sur la santé humaine qui pourraient advenir lors d'un traitement inapproprié des déchets.

Pour plus d'informations à propos de la collecte et du recyclage des déchets d'équipements électriques et électroniques et des piles usagées, veuillez contacter votre municipalité, votre service de traitement des déchets ou le point de vente où vous avez acheté les produits.



### [Pour les professionnels dans l'Union Européenne]

Si vous souhaitez vous débarrasser des déchets d'équipements électriques et électroniques veuillez contacter votre vendeur ou fournisseur pour plus d'informations.

### [Information sur le traitement dans d'autres pays en dehors de l'Union Européenne]

Ces symboles sont seulement valables dans l'Union Européenne. Si vous souhaitez vous débarrasser de déchets d'équipements électriques et électroniques ou de piles usagées, veuillez contacter les autorités locales ou votre fournisseur et demander la méthode de traitement appropriée.



### Note pour le symbole « pile » (deux exemples de symbole ci-dessous) :

Ce symbole peut être utilisé en combinaison avec un symbole chimique. Dans ce cas il respecte les exigences établies par la Directive pour le produit chimique en question.

**Cd**

## Verbraucherinformation zur Sammlung und Entsorgung alter Elektrogeräte und benutzter Batterien



Befinden sich diese Symbole auf den Produkten, der Verpackung und/oder beiliegenden Unterlagen, so sollten benutzte elektrische Geräte und Batterien nicht mit dem normalen Haushaltsabfall entsorgt werden.

In Übereinstimmung mit Ihren nationalen Bestimmungen und den Richtlinien 2002/96/EC und 2006/66/EC, bringen Sie alte Geräte und benutzte Batterien bitte zur fachgerechten Entsorgung, Wiederaufbereitung und Wiederverwendung zu den entsprechenden Sammelstellen.

Durch die fachgerechte Entsorgung der Elektrogeräte und Batterien helfen Sie, wertvolle Ressourcen zu schützen und verhindern mögliche negative Auswirkungen auf die menschliche Gesundheit und die Umwelt, die andernfalls durch unsachgerechte Müllentsorgung auftreten könnten.

Für weitere Informationen zum Sammeln und Wiederaufbereiten alter Elektrogeräte und Batterien, kontaktieren Sie bitte Ihre örtliche Stadt- oder Gemeindeverwaltung, Ihren Abfallentsorgungsdienst oder die Verkaufsstelle der Artikel.



### [Information für geschäftliche Anwender in der Europäischen Union]

Wenn Sie Elektrogeräte ausrangieren möchten, kontaktieren Sie bitte Ihren Händler oder Zulieferer für weitere Informationen.

### [Entsorgungsinformation für Länder außerhalb der Europäischen Union]

Diese Symbole gelten nur innerhalb der Europäischen Union. Wenn Sie solche Artikel ausrangieren möchten, kontaktieren Sie bitte Ihre örtlichen Behörden oder Ihren Händler und fragen Sie nach der sachgerechten Entsorgungsmethode.



**Cd**

### Anmerkung zum Batteriesymbol (untere zwei Symbolbeispiele):

Dieses Symbol kann auch in Kombination mit einem chemischen Symbol verwendet werden. In diesem Fall entspricht dies den Anforderungen der Richtlinie zur Verwendung chemischer Stoffe.

## COMPLIANCE INFORMATION STATEMENT (DECLARATION OF CONFORMITY PROCEDURE)

Responsible Party : Yamaha Corporation of America  
Address : 6600 Orangethorpe Avenue, Buena Park, CA 90620 USA  
Telephone : 1-714-522-9011  
Fax : 1-714-522-9301  
Type of Equipment : Player Piano Control Unit  
Model Name : DKC-850

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- 1) this device may not cause harmful interference, and
- 2) this device must accept any interference received including interference that may cause undesired operation.

See user manual instructions if interference to radio reception is suspected.

The above statements apply ONLY to those products distributed by Yamaha Corporation of America or its subsidiaries.

## FCC INFORMATION (U.S.A.)

### 1. IMPORTANT NOTICE: DO NOT MODIFY THIS UNIT!

This product, when installed as indicated in the instructions contained in this manual, meets FCC requirements. Modifications not expressly approved by Yamaha may void your authority, granted by the FCC, to use the product.

### 2. IMPORTANT: When connecting this product to accessories and/or another product use only high quality shielded cables. Cable/s supplied with this product MUST be used. Follow all installation instructions. Failure to follow instructions could void your FCC authorization to use this product in the USA.

### 3. NOTE: This product has been tested and found to comply with the requirements listed in FCC Regulations, Part 15 for Class "B" digital devices. Compliance with these requirements provides a reasonable level of assurance that your use of this product in a residential environment will not result in harmful interference with other electronic devices. This equipment generates/uses radio frequencies and, if not installed and used according to the instructions found in the users manual, may cause interference harmful to the operation of other electronic devices. Compliance with FCC regulations does not guarantee that interference will not occur in all installations. If this product is found to be the source of interference, which can be determined by turning the unit "OFF" and "ON", please try to eliminate the problem by using one of the following measures:

Relocate either this product or the device that is being affected by the interference.

Utilize power outlets that are on different branch (circuit breaker or fuse) circuits or install AC line filter/s.

In the case of radio or TV interference, relocate/reorient the antenna. If the antenna lead-in is 300 ohm ribbon lead, change the lead-in to coaxial type cable.

If these corrective measures do not produce satisfactory results, please contact the local retailer authorized to distribute this type of product. If you can not locate the appropriate retailer, please contact Yamaha Corporation of America, Electronic Service Division, 6600 Orangethorpe Ave, Buena Park, CA 90620

The above statements apply ONLY to those products distributed by Yamaha Corporation of America or its subsidiaries.

# disklavier™

Disklavier Control Unit DKC-850

## Operation manual

# Welcome to the Yamaha Disklavier™!

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Thank you for purchasing the Yamaha Disklavier control unit!

This control unit is a fascinating instrument that integrates a classic Yamaha acoustic piano with innovative electronics to suit your entertainment, educational, and creative needs, while retaining the tone, touch and long-term value that have long made Yamaha pianos the world's finest.

Before using your Disklavier control unit, please read this manual thoroughly and retain it for future reference.

## ■ Notes on Source Code Distribution

For three years after the factory shipment, you may request from Yamaha the source code for any portions of the product which are licensed under the GNU General Public License by writing to the following address:

10-1 Nakazawa-cho, Naka-ku, Hamamatsu, Shizuoka, 430-8650, JAPAN  
Piano Development Department, Yamaha Corporation

The source code will be provided at no charge; however, we may require you to reimburse Yamaha for the cost of delivering the source code to you.

The source code download is also available on the following website:

[http://download.yamaha.com/sourcecodes/disklavier\\_e3/](http://download.yamaha.com/sourcecodes/disklavier_e3/)

- Note that we shall bear no responsibility whatsoever for any damage arising from changes (additions/deletions) made to the software for this product by a third party other than Yamaha (or party authorized by Yamaha).
- Note that re-use of source code released to the public domain by Yamaha is unguaranteed, and Yamaha shall not bear any responsibility whatsoever for the source code.

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- Disklavier software, Copyright © 2008 Yamaha Corporation.
- This contains programs licensed under the GNU General Public License, GNU Lesser General Public License, the BSD Copyright, the Artistic License, and the others.
- This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (<http://www.openssl.org/>)
- Windows is a registered trademark of Microsoft Corporation in the United States and other countries.
- Macintosh and Mac OS are trademarks of Apple Inc., registered in the U.S. and other countries.
- The company names and product names in this operation manual are the trademarks or registered trademarks of their respective companies.

## Important Precautions

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Read the following before operating the Disklavier control unit.

### ■ Warnings

- Do not locate the Disklavier control unit in a place subject to excessive heat, low temperatures, or direct sunlight. This could be a fire hazard and may damage the finish and internal parts.
- Excessive humidity or dust can lead to fire or electric shock.
- Connect the plug of the AC adaptor to a compatible AC outlet. Failure to do so will present a fire and electric shock hazard. If the AC adaptor is not compatible with your AC outlet, consult your dealer.
- Do not plug several devices into the same AC outlet. This can overload the AC outlet, and lead to fire and electric shock hazard. It may also affect the performance of some devices.
- Do not place heavy objects on the AC adaptor cable. A damaged cable is a potential fire and electric shock hazard. If the cable runs under a carpet, make sure heavy objects are not placed on top of the cable.
- If the AC adaptor cable is damaged (i.e. cut or a bare wire is exposed), ask your dealer for a replacement. Using the Disklavier control unit in this condition is a fire and shock hazard.
- When disconnecting the AC adaptor cable from an AC outlet, always pull from the plug. Never pull the cable. Damaging the cable in this way is a potential fire and electric shock hazard.
- The cover of the unit should be removed only by qualified service technicians.
- Do not place liquid containers such as vases, potted plants, glasses, cosmetic bottles, medicines, etc., on the Disklavier control unit.
- Do not try to modify the Disklavier control unit, as this could lead to fire or electric shock hazard.
- When moving the Disklavier control unit to another location, turn off the power, remove the AC adaptor from the AC outlet, and remove all cables connected to external devices.
- Use only the specified AC adaptor. Use of other AC adaptors may result in damage, overheating, or fire.

### ■ Cautions

- Turn off all audio devices when connecting to the Disklavier control unit. Refer to the user's guide for each device. Use the correct cables and connect as specified.
- Set the volume level on all the devices to minimum before applying power.
- Do not play the Disklavier control unit at a high volume for extended periods; you may damage your hearing. This is especially important when using headphones. If you think your hearing ability is impaired, consult your doctor.
- If the Disklavier control unit is worked extremely hard — that is, prolonged playback of very “busy” songs — the thermal relay of the Disklavier control unit may trip. The thermal relay will automatically reset when the Disklavier control unit has cooled down.
- If you notice any abnormality — such as smoke, odor, or noise — turn off the Disklavier control unit immediately, and remove the AC adaptor from the AC outlet. Consult your dealer for repair.
- If a foreign object or water gets inside the Disklavier control unit turn it off immediately, and remove the power plug from the AC outlet. Consult your dealer.
- If you plan not to use the Disklavier control unit for a long period of time (such as when you are on vacation), disconnect the AC adaptor from the AC outlet.
- Always remove the AC adaptor from the AC outlet before cleaning the Disklavier control unit. Leaving the AC adaptor connected presents a risk of electric shock.
- Do not use benzene, thinner, cleaning detergent, or a chemical cloth to clean the Disklavier control unit.
- Do not place metal objects with rubber feet on the Disklavier control unit. The color and finish of the Disklavier control unit can be damaged.
- Do not place heavy objects on the Disklavier control unit. Doing so can damage the Disklavier control unit.
- Use a soft, dry cloth to clean the Disklavier control unit. However, if you discover a stain, carefully use a soft damp cloth to remove it.



## ■ Interference

- The Disklavier control unit uses high-frequency digital circuits that may cause interference to radios and TVs placed close to it. If interference does occur, relocate the affected equipment.

## ■ Handling Batteries

The remote control of this unit is powered by dry batteries. Improper use or misuse of the dry batteries can cause the dry batteries to heat up, leak electrolyte or burst which in turn may result in a fire, damage to equipment and/or nearby objects or in burns, injury or other bodily harm. Read through and familiarize yourself with the following safety precautions prior to use to ensure correct usage.

- Do not directly touch the chemicals (electrolyte) which have leaked from dry batteries.
  1. If electrolyte from dry batteries has made contact with your eyes, rinse your eyes thoroughly with clean water and seek medical treatment from a physician immediately.
  2. If electrolyte from dry batteries has touched your skin or clothing, rinse it off immediately with clean water.
  3. If electrolyte from dry batteries has found its way inside your mouth, gargle immediately and consult a physician.
- Do not install the dry batteries with the “+” and “-” poles reversed. Misaligning the poles of dry batteries can lead the dry batteries to be charged or shorted or it can cause them to heat up, leak electrolyte or burst which in turn may result in a fire, damage to nearby objects or in burns, injury or other bodily harm.
- Use only the designated batteries. Do not use used batteries with unused batteries or different types of batteries together. This can cause them to heat up, leak electrolyte or burst which in turn may result in a fire or in burns, injury or other bodily harm. Replace all the dry batteries at the same time. Do not use new and old dry batteries together. Do not use different types of batteries (alkaline and manganese batteries, batteries made by different manufacturers or different battery products made by the same manufacturer) together: this can cause them to heat up, ignite or leak electrolyte.
- When the battery-powered unit is not going to be used for a prolonged period of time, remove the dry batteries from the unit. Otherwise the batteries will run down and their electrolyte may leak, resulting in damage to the unit.
- Remove spent batteries immediately from equipment. Otherwise, batteries will overdischarge, causing them to heat up, leak electrolyte or burst which in turn may result in damage to nearby objects or in burns, injury or other bodily harm.
- Dispose of batteries in accordance with the applicable regulations and ordinances.
- The batteries shall not be exposed to excessive heat such as sunshine, fire or the like.

**Please keep this manual for future reference.**

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**Chapter 18 Specifications**

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**Appendix Software License Notice....A-1  
MIDI Data Format .....A-21****MIDI IMPLEMENTATION CHART**

## Features

---

The Disklavier control unit offers the valuable features that open up your musical possibility to explore. Here are brief explanations of such features:

### Advanced Features for Your Listening Pleasure

- Special music CDs, contain over 17 hours of fantastic music, let you start listening on the day this unit arrives at your home.
- DisklavierRadio; you can listen to over 11 music channel by streaming broadcasts over the Internet. (Available only on models of which the control unit is replaced with the Disklavier control unit.)

### Convenient Recording Features to Preserve Your Musical Memories

- Total 128 megabytes of internal memory comes with the Disklavier control unit to preserve your valuable data.
- Connecting external USB devices to the Disklavier control unit allows you to record your performance directly onto them, or even make backups of your valuable data in the internal memory.
- Video synchronization features offer great listening experience with sights. You can see as well as hear performances with perfectly synchronized audio and video.
- Your valuable music data on the floppy disk can be played back with the optional floppy disk drive (UD-FD01).

### Simple and Easy-to-use Features Enhancing Your Performance

- The remote control, with clear and logical layout of buttons, lets you quickly enjoy the features of the Disklavier control unit.
- The display on the front panel employs an organic electro-luminescent display which makes it brighter and more easily readable than ever.

## Items Supplied with the Disklavier Control Unit

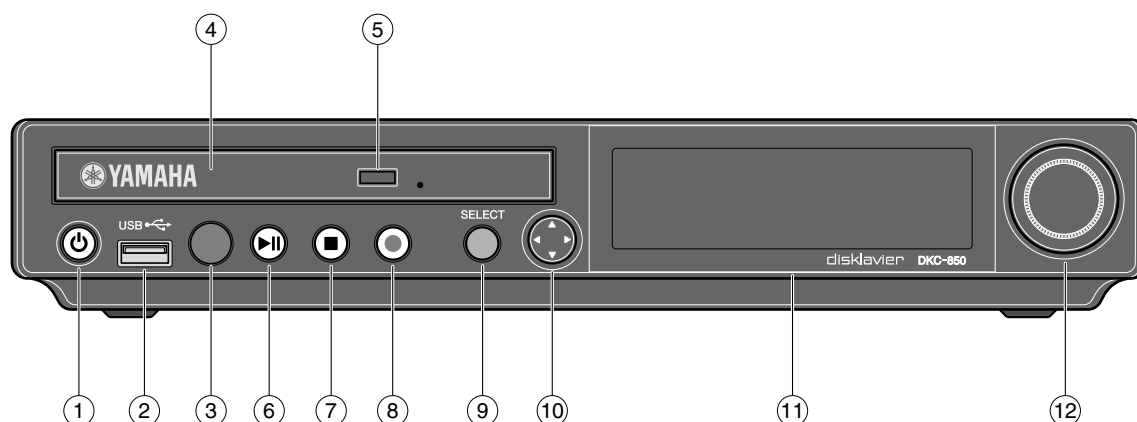
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Check that the following items are supplied with your Disklavier control unit.

- 1 Remote control
- 2 Batteries for remote control
- 1 Remote control sensor shielding sticker
- 1 Sample PianoSoft CD software
- 2 MIDI cables
- 1 Audio cable (pin plugs – stereo mini plug)
- 2 Audio cables (pin plug – phone plug)
- 1 Conversion cable for control
- 1 AC adaptor (PJP-PS02/PJP-PS04 or an equivalent recommended by Yamaha)
- 1 Power cable
- 1 Operation manual
- 1 PianoSoft CD song list

## Names of Parts and Their Functions

### ■ Front Panel



#### ① [ON/OFF] button

Turns on or shuts down the Disklavier control unit. Press once to turn it on, and once again to shut it down.

#### ② **USB port**

Used to connect a USB flash memory, etc.

#### ③ **Remote control sensor**

When using the remote control, point it toward this sensor.

#### ④ **CD drive**

Insert a PianoSoft·PlusAudio or other audio or audio/MIDI CD here.

#### ⑤ **CD eject button**

Used to open the CD drive.

#### ⑥ **[PLAY/PAUSE] button** ( pages 25 and 26)

Used to start and pause playback.

#### ⑦ **[STOP] button** ( page 26)

Used to stop playback and recording.

#### ⑧ **[RECORD] button** ( page 32)

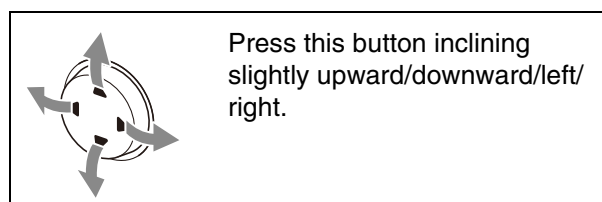
Used to engage the record standby mode before recording starts.

#### ⑨ **[SELECT] button**

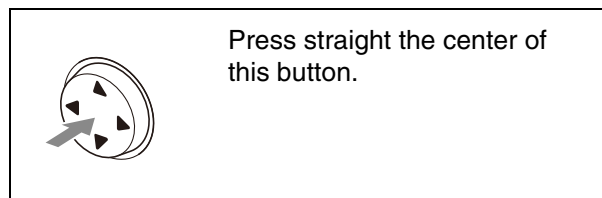
Used to select media.

#### ⑩ **Cursor/[ENTER] buttons**

Cursor: Used to select options and parameters.



[ENTER]: Used to execute the selection.



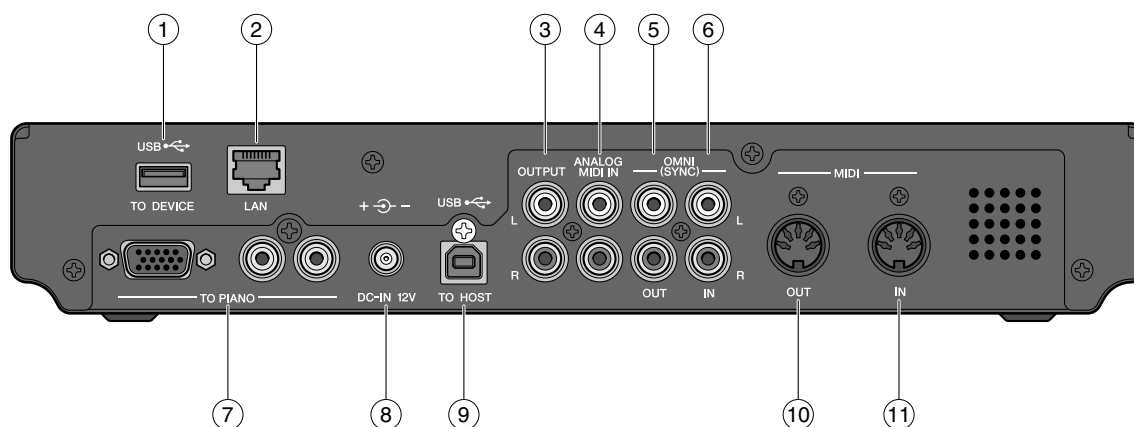
#### ⑪ **Display**

Shows various information.

#### ⑫ **Dial**

Used to adjust the volume, and to set parameter values.

## ■ Rear Panel



### ① USB TO DEVICE port

Used to connect a USB flash memory, an optional USB floppy disk drive, etc.

### ② LAN port

Used to connect to the Internet.

### ③ OUTPUT jacks

Used to connect the speaker cord from optional monitor speakers.

### ④ ANALOG MIDI IN jacks

Used to connect the audio equipment such as an external CD changer.

### ⑤ OMNI (SYNC) OUT jacks

Used to connect the microphone/line input of a camcorder.

### ⑥ OMNI (SYNC) IN jacks

Used to connect the audio output of a camcorder.

### ⑦ TO PIANO connectors

Used to connect the piano.

### ⑧ DC-IN 12V connector

Used to connect to the supplied AC adaptor.

### ⑨ USB TO HOST port

Used to connect the USB cable from a computer.

### ⑩ MIDI OUT terminal

For models to be replaced with Disklavier control unit:

Used to connect external MIDI equipment.

For models to be connected with the MIDI cables:  
Used to connect the existing control unit.

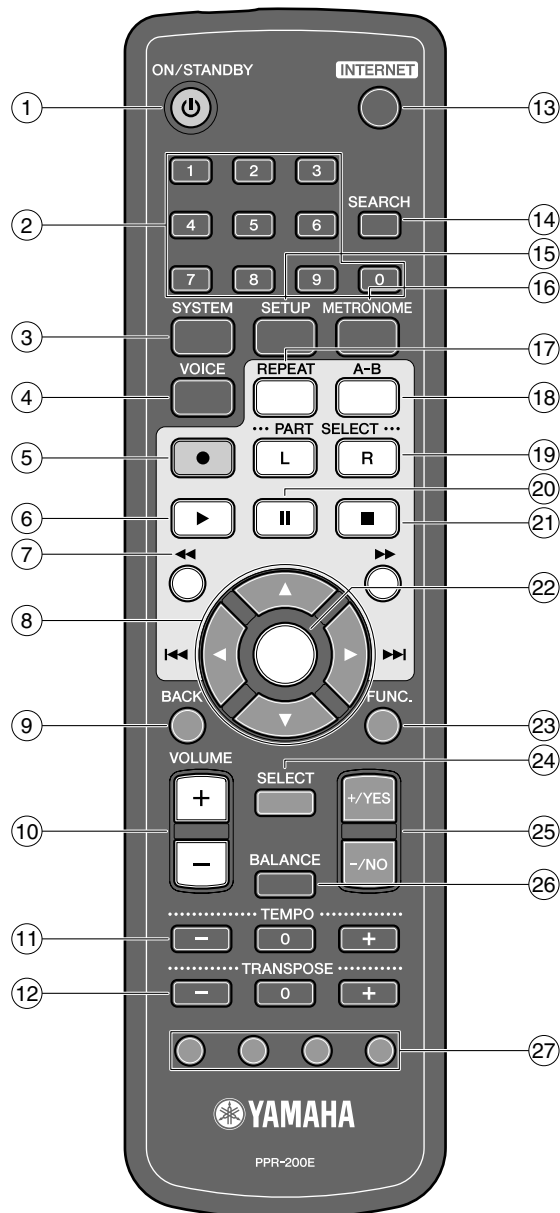
### ⑪ MIDI IN terminal

For models to be replaced with Disklavier control unit:

Used to connect external MIDI equipment.

For models to be connected with the MIDI cables:  
Used to connect the existing control unit.

## ■ Remote Control



① **[ON/STANDBY] button**

Turns on the Disklavier control unit or puts it in the standby mode.

② **Number keypad**

Used for direct album/song selection and to enter a start time for song playback.

③ **[SYSTEM] button**

Used to access the system menu.

④ **[VOICE] button**

Used to access the voice function.

⑤ **[RECORD] button**

Used to engage the record standby mode before recording starts.

⑥ **[PLAY] button**

Used to start playback.

⑦ **[REVERSE]/[FORWARD] buttons**

In the play mode: used to fast preview and review.  
In the pause mode: used to fast forward and reverse.

⑧ **Cursor buttons**

Used to select options and parameters.

- ⑨ **[BACK] button**  
Used to cancel the selection, and return to the previous screen.
- ⑩ **[VOLUME] buttons (☞ page 31)**  
Used to adjust the volume.  
[-] lowers the volume, [+] raises the volume.
- ⑪ **[TEMPO] buttons**  
Used to change the playback tempo.  
[-] decreases the tempo, [+] increases the tempo, and [0] resets the tempo to 00.
- ⑫ **[TRANPOSE] buttons**  
Used to transpose song playback.  
[-] transposes down, [+] transposes up, and [0] resets the transposition value to 00.
- ⑬ **[INTERNET] button**  
Used to access the Internet menu.
- ⑭ **[SEARCH] button**  
Used to access the search function.
- ⑮ **[SETUP] button**  
Used to access the setup menu.
- ⑯ **[METRONOME] button**  
Used to access the metronome function.
- ⑰ **[REPEAT] button**  
Used to select one of the repeat modes: ALL, RPT, RND, or OFF.
- ⑱ **[A-B] button**  
Used to enter A and B points for the A-B repeat mode.
- ⑲ **[PART SELECT] buttons**  
For L/R and ensemble songs, these buttons are used to choose which part will play: left-hand part, right-hand part, or both parts.  
They are also used to select a part for recording.
- ⑳ **[PAUSE] button (☞ page 26)**  
Used to pause playback.
- ㉑ **[STOP] button (☞ page 26)**  
Used to stop playback and recording.
- ㉒ **[ENTER] button**  
Used to execute the selection.
- ㉓ **[FUNC.] button**  
Used to access the function menu.
- ㉔ **[SELECT] button**  
Used to select media.
- ㉕ **[+/YES]/[-/NO] buttons**  
Used to select parameters, adjust setting values, and execute or cancel the selected functions.
- ㉖ **[BALANCE] button**  
Used to adjust the TG, audio and voice balance.
- ㉗ **Color buttons**  
Green: Used to execute the shortcut assigned to the number keypad.  
Yellow: Used to switch character types when titling albums and songs.  
Red: For future use.  
Blue: For future use.



## Basic Disklavier Terminology

The following is a list of several basic Disklavier words that you may need to know before proceeding with operational procedures in this manual. For additional Disklavier terminology, see the glossary provided in Chapter 16.

### Ensemble Song

An ensemble song contains the same left- and right-hand parts as an L/R song, and extra tracks that are played by the internal XG tone generator. Accompanying tracks can include acoustic bass, drums, strings, vibes, etc.

### Internal Flash Memory

The Disklavier control unit has a total of 128 megabytes of internal flash memory that allow you to store song data without a floppy disk.

### L/R Song

In a L/R song, the left-hand piano part is stored on track 1 (L) and the right-hand piano part is stored on track 2 (R). During playback you can cancel either part, and practice that part yourself. When recording an L/R song, you can record the two parts simultaneously or separately.

### MIDI

An acronym for Musical Instrument Digital Interface. MIDI allows electronic musical instruments to communicate with each other.

### PianoSoft



The PianoSoft Disk Collection is a library of prerecorded song disks made by Yamaha for use with the Disklavier series. Many titles are available, and among the many musical styles included are classical, jazz, and popular. The disk includes songs for listening enjoyment, piano study disks for the piano student, and accompaniment disks for vocal and instrumental practice. PianoSoft is sometimes used as a generic term for PianoSoft and PianoSoft-Plus.

### PianoSoft-Plus



PianoSoft-Plus software contains prerecorded ensemble songs featuring instrumental accompaniment that can be played back on the Disklavier. See your Disklavier dealer for a PianoSoft catalog.

### PianoSoft-PlusAudio



CD software made by Yamaha containing audio and MIDI signals for playing back on the Disklavier.

### SmartPianoSoft



Software made by Yamaha containing MIDI signals for playing back along with standard audio CDs.

### Song

A “song” usually means a short piece of music with lyrics. However, in this manual the term “song” is used to refer to any piece of music.

### Tone Generator

An electronic device that generates instrument voices. The Disklavier control unit has an internal XG tone generator that can produce nearly 700 instrumental and percussion voices.

### Voice

The sounds produced by a tone generator expressing various instruments.

### XG



Yamaha XG is an extension of the GM (General MIDI) format. With greater polyphony, more voice, and effects, it improves song compatibility between MIDI devices. When a song in the Yamaha XG format is played on another XG compatible tone generator or synthesizer, it will play and sound as the original composer/creator intended.

# Getting Started

This chapter describes instructions for connecting with your Disklavier piano and other preparation.

## Checking the Type of Your Piano

The Disklavier control unit can be connected to several models of the Yamaha Disklavier pianos, however, connections and setup procedures vary depending on the piano model. Check the model number on the existing control unit and find your piano model following the descriptions below before connecting.

**Note:**

The model number of the control unit is on the upper part of the display.

### ■ Models to be Replaced with the Disklavier Control Unit

If you are using the piano listed below, **replace the existing control unit with the Disklavier control unit.**

| Models         |   | Model Number on the Control Unit         |
|----------------|---|--|
| Upright pianos | Disklavier Mark II XG Series                    | DKC500R, DKC500RXG, DKC500RW, DKC500RWXG |
|                | Disklavier Mark II XG Series (MX600)            | DKC50R                                   |
|                | Disklavier Mark III Series (DU1A)               | DKC55RCD                                 |
| Grand pianos   | Disklavier Mark II XG Series                    | DKC500R, DKC500RXG, DKC500RW, DKC500RWXG |
|                | Disklavier Mark III Series Full-Function Models | DKC55RCD                                 |
|                | Disklavier Mark III Series Standard Models      | DKC60RCD                                 |
|                | Disklavier Mark III Series PRO Models           | DKC55RCD                                 |
|                | Disklavier Mark III Series Playback Models      | DKC55, DKC55CD                           |

For details on connections and setup, see Chapter 2 “Getting Started – Replacing the Existing Control Unit with the Disklavier Control Unit” on page 8.

**Note:**

You can also connect the piano listed above with the Disklavier control unit using the MIDI cables. However, you cannot use Internet Direct Connection when connected with the MIDI cables.

### ■ Models to be Connected with the MIDI Cables

If you are using the piano listed below, **connect your piano to the Disklavier control unit with the MIDI cables.**

| Models         |                           | Model Number on the Control Unit |
|----------------|---------------------------|----------------------------------|
| Upright pianos | Disklavier Mark II Series | DKC100R or built-in              |
| Grand pianos   | Disklavier Mark II Series | DKC100R                          |

For details on connections and setup, see Chapter 2 “Getting Started – Connecting the Disklavier Control Unit with the MIDI Cables” on page 10.

**Note:**

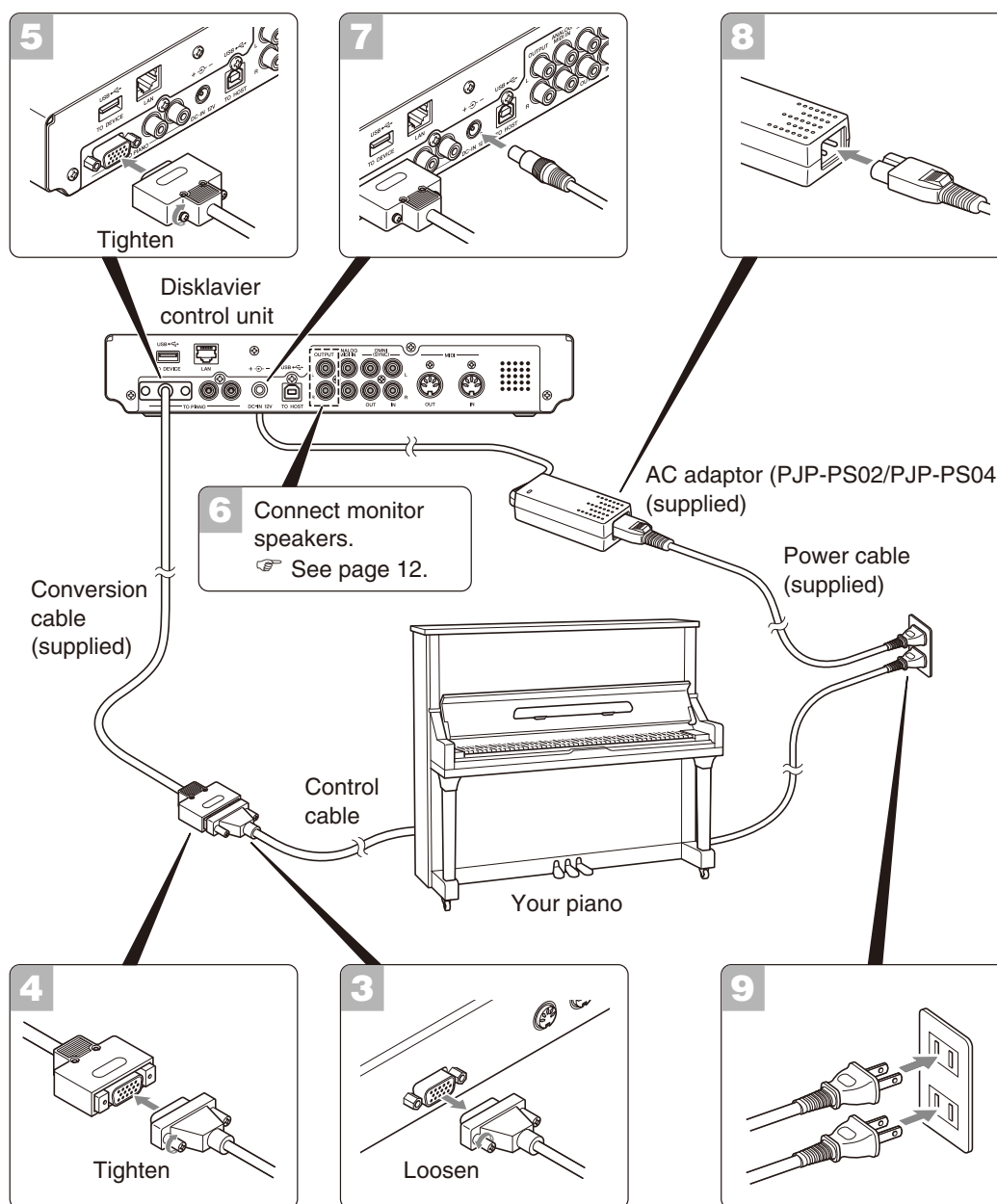
You cannot replace the control unit of the piano listed above with the Disklavier control unit.

**Note:**

You cannot use Internet Direct Connection on the piano listed above.

## Replacing the Existing Control Unit with the Disklavier Control Unit

Connect the Disklavier control unit to your piano, replacing with the existing control unit.



### Cautions

- Use the Yamaha PJP-PS02/PJP-PS04 adaptor, or an equivalent recommended by Yamaha. Use of other AC adaptors may result in damage, overheating, or fire.
- Do not stretch the cable or bend its ends.
- Do not attempt to use the cable if it is stretched or if the ends of the cable have been bent. Attempting to do so may cause interruptions to the power supply.
- Always turn off the main unit power before disconnecting the AC adaptor.
- When you wish to move the Disklavier control unit, unplug the AC adaptor from the AC wall outlet and disconnect it from the DC-IN 12V connector on the rear panel of the Disklavier control unit before proceeding.
- Unplug the AC adaptor from the AC wall outlet if you do not intend to use the instrument for an extended period of time.

**Important**

- Be sure to backup the data on your control unit to the floppy disk before connecting.
- Please keep the disconnected control unit for future maintenance.

**1 Turn on your piano, and reset settings on your control unit to its factory default.**

For details on setting, refer to your piano's owner's manual.

**2 Turn off your piano, and disconnect the power cable from the AC wall outlet.****3 Disconnect the control cable from the TO CONTROL CABLE FOR PIANO connector on the rear panel of your control unit.**

Loosen the two screws attached to the connector by the screwdriver.

**4 Connect the supplied conversion cable to the control cable disconnected in step 2.**

Tighten the two screws attached to the connector by the screwdriver.

**5 Connect the supplied conversion cable to the TO PIANO connector on the rear panel of the Disklavier control unit.**

Tighten the two screws attached to the connector by the screwdriver.

**6 Connect monitor speakers to the OUTPUT jacks on the rear panel of the Disklavier control unit.****7 Connect the supplied AC adaptor to the DC-IN 12V connector on the rear panel of the Disklavier control unit.****8 Connect the supplied power cable to the AC adaptor.****9 Connect the power cable extended from your piano and the AC adaptor to the AC wall outlet.**

The connection completed.

Turn on the Disklavier control unit, and set the piano type.

**Note:**

The location of the TO CONTROL CABLE FOR PIANO connector varies depending on the piano model.

**Attention:**

The Disklavier control unit does not work properly if the control cable is connected directly to it. Use the supplied conversion cable to connect your piano and the Disklavier control unit.



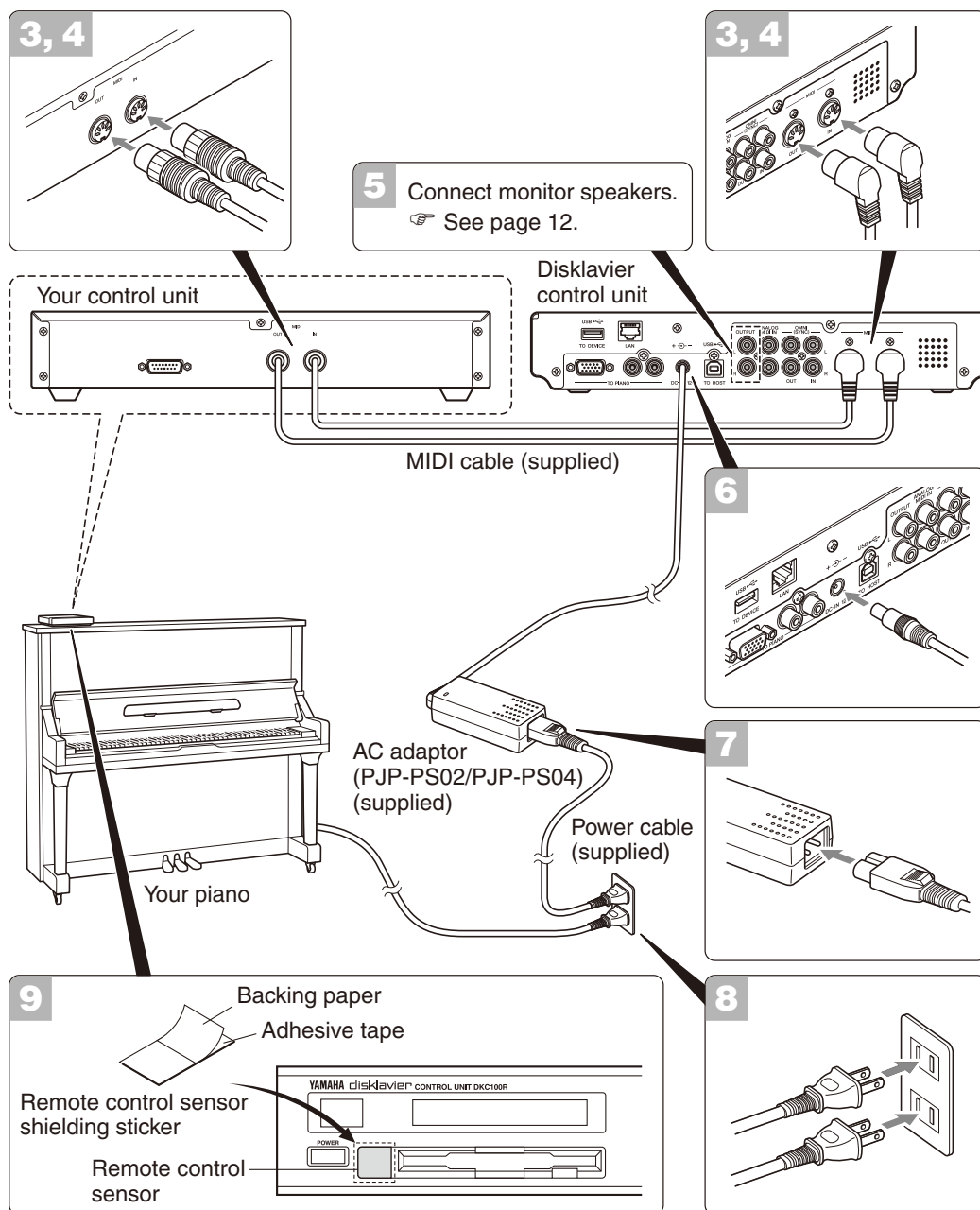
See Chapter 2 “Getting Started – Connecting Monitor Speakers” on page 12.



See Chapter 2 “Getting Started – Setting the Type of Your Piano” on page 15.

## Connecting the Disklavier Control Unit with the MIDI Cables

Connect the Disklavier control unit to your piano using the MIDI cables.



### Cautions

- Use the Yamaha PJP-PS02/PJP-PS04 adaptor, or an equivalent recommended by Yamaha. Use of other AC adaptors may result in damage, overheating, or fire.
- Do not stretch the cable or bend its ends.
- Do not attempt to use the cable if it is stretched or if the ends of the cable have been bent. Attempting to do so may cause interruptions to the power supply.
- Always turn off the main unit power before disconnecting the AC adaptor.
- When you wish to move the Disklavier control unit, unplug the AC adaptor from the AC wall outlet and disconnect it from the DC-IN 12V connector on the rear panel of the Disklavier control unit before proceeding.
- Unplug the AC adaptor from the AC wall outlet if you do not intend to use the instrument for an extended period of time.

**Important**

Be sure to backup the data on your control unit to the floppy disk before connecting.

**1 Turn on your piano, and reset settings on your control unit to its factory default.**

For details on setting, refer to your piano's owner's manual.

**2 Turn off your piano, and disconnect the power cable from the AC wall outlet.**

**3 Connect the MIDI IN terminal of your control unit to the MIDI OUT terminal of the rear panel of the Disklavier control unit with the supplied MIDI cable.**

**4 Connect the MIDI OUT terminal of your control unit to the MIDI IN terminal of the rear panel of the Disklavier control unit with the supplied MIDI cable.**

**5 Connect monitor speakers to the OUTPUT jack on the rear panel of the Disklavier control unit.**

**6 Connect the supplied AC adaptor to the DC-IN 12V connector on the rear panel of the Disklavier control unit.**

**7 Connect the supplied power cable to the AC adaptor.**

**8 Connect the power cable extended from your piano and the AC adaptor to the AC wall outlet.**

**9 Place the remote control sensor shielding sticker over the remote control sensor of the control unit of your piano.**

The remote control supplied with the Disklavier control unit will also operate the control unit of your piano. In order to prevent this, be sure to place the remote control sensor shielding sticker.

**10 Turn on your piano, and make the MIDI data transmission/reception settings on the control unit of your piano.**

Make the settings as follows. For details on setting, refer to your piano's owner's manual.

**Settings**

|            |                  |
|------------|------------------|
| MIDI IN CH | HP               |
| MIDI IN    | DELAY IN (500ms) |
| MIDI OUT   | KBD OUT          |
| OUT CH     | HP               |

The connection completed.  
Turn on the Disklavier control unit, and set the piano type.

**Note:**

The location of the MIDI IN/MIDI OUT terminals varies depending on the piano model.

**Note:**

Be sure to connect your control unit and the Disklavier control unit with two MIDI cables for input and output.



See Chapter 2 "Getting Started – Connecting Monitor Speakers" on page 12.

**Note:**

For the location of the remote control sensor, refer to your piano's owner's manual.

**Note:**

If you connect your control unit, which is replaceable with the Disklavier control unit, with the MIDI cables, set the HOST SELECT switch on your control unit to the "MIDI" position.



See Chapter 2 "Getting Started – Setting the Type of Your Piano" on page 15.

## Connecting Monitor Speakers

To listen to the internal XG tone generator voices, you have to connect monitor speakers. Connection methods vary depending on whether your piano is equipped with the Silent Piano™ function or not.

### ■ For Pianos Equipped with the Silent Piano™ Function

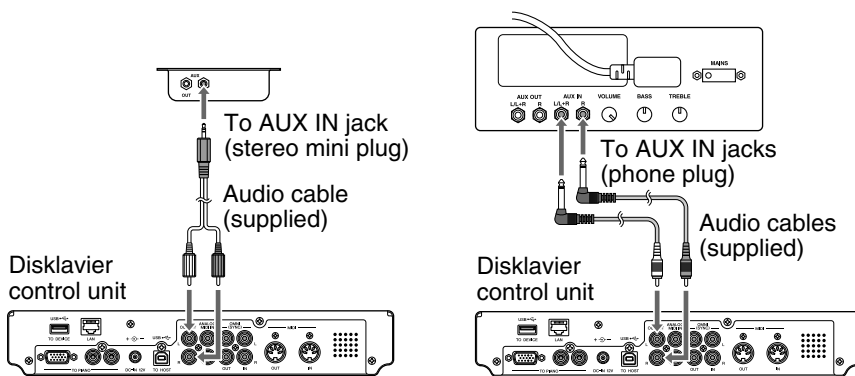
Connect the AUX IN jacks of your piano to the OUTPUT jacks on the rear of the Disklavier control unit with the supplied audio cable.

#### For models with the control box

Connect with the supplied audio cable (pin plugs – stereo mini plug).

#### For models with the amplifier

Connect with the supplied audio cables (pin plug – phone plug).

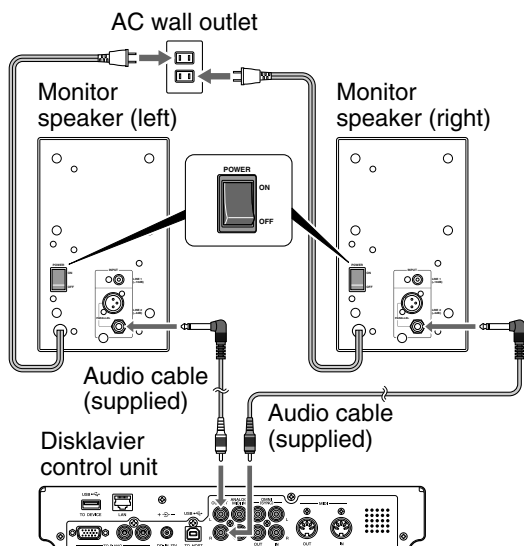


#### Note:

The shape of units or the location of the AUX IN jacks varies depending on the piano model.

### ■ For Pianos Not Equipped with the Silent Piano™ Function

Connect the input jacks of monitor speakers (phone jacks) to the OUTPUT jacks on the rear of the Disklavier control unit with the supplied audio cables (pin plug – phone plug).



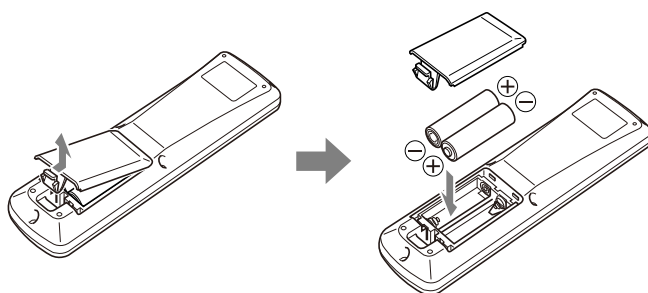
## Using the Remote Control

The Disklavier control unit is equipped with a remote control which allows convenient control from almost anywhere in the room. This section provides notes on handling the remote control.

### ■ Installing Batteries in the Remote Control

Before the remote control can be used, the two batteries supplied with the Disklavier control unit must be installed.

Remove the battery cover from the rear of the remote control, install the batteries, and then replace the cover.



A diagram inside the battery compartment shows which way the batteries should be installed. Make sure you insert them correctly.

### ■ Battery Replacement

When the remote control fails to work from a distance, replace the batteries.

- Replacement batteries should be UM-3, AA, R6P, or LR6 type.
- Do not use new and old dry batteries together.
- Do not use different types of batteries (alkaline and manganese batteries, batteries made by different manufacturers or different battery products made by the same manufacturer) together.
- Remove spent batteries immediately from the remote control. Otherwise, batteries will overdischarge, causing them to leak electrolyte or burst which in turn may result in damage to nearby objects or in burns, injury or other bodily harm.
- Dispose of batteries in accordance with the applicable regulations and ordinances.
- If the remote control is not to be used for a prolonged period of time, remove the batteries to prevent possible damage by battery leakage.
- If the batteries have leaked, dispose of them immediately. Avoid touching the leaked electrolyte or letting it come into contact with skin or clothing. Clean the battery compartment thoroughly before installing new batteries.

#### Important:

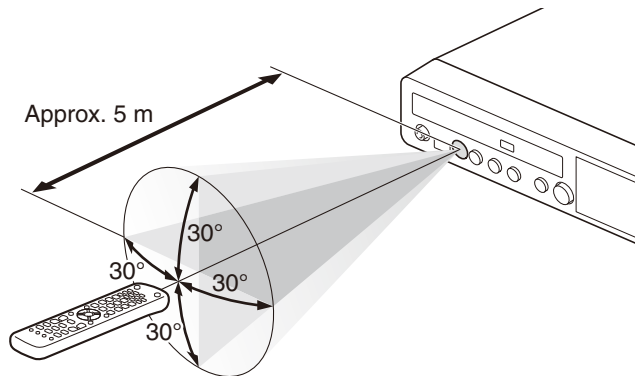
Be sure to read the section on “Handling Batteries” on page iii for details on the safe handling of dry batteries.



## Getting Started

### ■ Using the Remote Control

To use the remote control, point it at the remote control sensor on the front panel.



## Turning On the Disklavier Control Unit

- 1** Make sure that the AC adaptor is plugged into the AC wall outlet.

When you connected the Disklavier control unit to your piano with the MIDI cables, first turn on the power of your piano.

- 2** Press [ON/OFF] on the front panel.



While the control unit is in the standby mode, you can also turn on the Disklavier control unit by pressing [ON/STANDBY] on the remote control.

ON/STANDBY



The following message appears on the display, and [ON/OFF] on the front panel lights green.



After several seconds, the loading screen will appear, and last selected song will be loaded.



Your Disklavier control unit is now ready for use.



See Chapter 2 “Getting Started – Turning Off the Disklavier Control Unit (Standby Mode)” on page 19.

## Setting the Type of Your Piano

[SYSTEM] "PianoType"

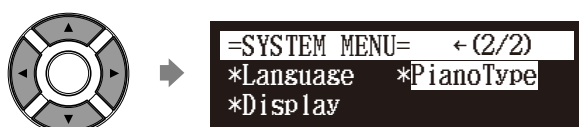
After you have connected the Disklavier control unit to your piano, you must set the type of your piano.

### 1 Press [SYSTEM] on the remote control.

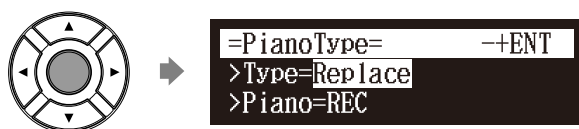
The system menu screen appears.



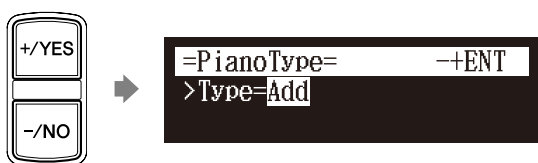
### 2 Select "PianoType" with the cursor buttons ([◀][▶][▲][▼]), then press [ENTER].



The piano type setup screen appears.



### 3 Press [+ / YES] and [- / NO] to change the connection type setting.



The following connection type settings are available:

| Setting | Description  |
|---------|--|
| Replace | Select this when you replaced the existing unit with the Disklavier control unit (see page 8).               |
| Add     | Select this when you connected the Disklavier control unit to your piano with the MIDI cables (see page 10). |

**Note:**

If you select "Replace" and this unit detects your piano as the playback model, "[PB]" appears on the right of the screen.

## Getting Started

**4** Press [ENTER].

If the piano type has been changed, this unit is automatically rebooted.



## Setting the Internal Calendar

[SYSTEM] → "TimeZone" and "Clock Adj."

The Disklavier control unit has an internal calendar that can be set from 1/1/1985 00:00:00 to 12/31/2084 23:59:59. Set the calendar accurately so that the Disklavier control unit displays the correct current time during the stop mode.

Time is displayed in 24-hour format.



Setting the correct time is also important for engaging timer-controlled programs. See Chapter 6 "Advanced Song Playback – Using the Timer Play" on page 51.

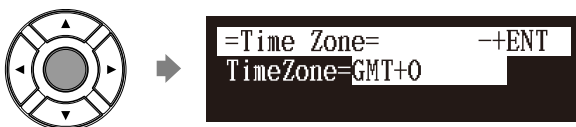
## ■ Time Zone

**1** Press [SYSTEM] on the remote control.

The system menu screen appears.

**2** Select "TimeZone" with the cursor buttons ([◀][▶][▲][▼]), then press [ENTER].

The time zone setup screen appears.



### 3 Press [+ / YES] and [- / NO] to change the time zone.



#### Examples of Time Zone

The chart below shows the correspondence between the time zone setting on the Disklavier control unit and actual time zone used in each area.

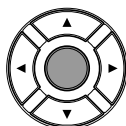
For U.S. and Canada:

| Setting | Actual Time Zone              |
|---------|-------------------------------|
| GMT-10  | Hawaii-Aleutian Standard Time |
| GMT-9   | Alaska Standard Time (AKST)   |
| GMT-8   | Alaska Daylight Time (AKDT)   |
|         | Pacific Standard Time (PST)   |
| GMT-7   | Pacific Daylight Time (PDT)   |
|         | Mountain Standard Time (MST)  |
| GMT-6   | Mountain Daylight Time (MDT)  |
|         | Central Standard Time (CST)   |
| GMT-5   | Central Daylight Time (CDT)   |
|         | Eastern Standard Time (EST)   |
| GMT-4   | Eastern Daylight Time (EDT)   |

For Europe:

| Setting | Actual Time Zone               |
|---------|--------------------------------|
| GMT+0   | U.K.                           |
| GMT+1   | Central Europe (Paris, Berlin) |
| GMT+2   | Eastern Europe (Athens)        |

### 4 Press [ENTER].



The time zone is set, and the display returns to the system menu. Proceed to the calendar setting.

#### Note:

The time zone listed here should be used only as a guide. For more details, contact your local observatories.

## Getting Started

## ■ Calendar

- 1** Select “Clock Adj.” with the cursor buttons ([ ◀ ] [ ▶ ] [ ▲ ] [ ▼ ]), then press [ENTER].



The current date and time appear.

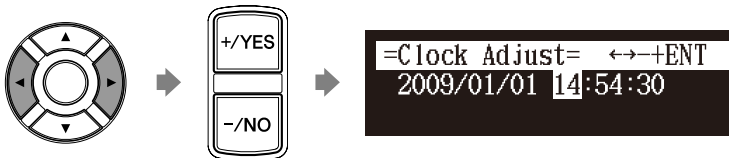


- 2** Press [ENTER].

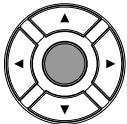
The time setup screen appears with the cursor flashing on the hours display.



- 3** Select year, month, date, hours, minutes, and seconds with the cursor buttons ([ ◀ ] [ ▶ ]), then press [+ / YES] and [- / NO] to set a value.



- 4** Press [ENTER].



The date and time are stored in the internal calendar, and the display returns to the current time screen.

- 5** Press [BACK] on the remote control.



The display returns to the system menu screen.

- 6** Press [SYSTEM] to exit from the system menu.



## Turning Off the Disklavier Control Unit (Standby Mode)

### Press [ON/STANDBY] on the remote control.

The ending screen appears, and [ON/OFF] on the front panel lights red.



When you connected the Disklavier control unit to your piano with the MIDI cables, turn off your piano.

#### Note:

Press [ON/STANDBY] on the remote control to turn the Disklavier control unit back on.

## Shutting Down the Disklavier Control Unit

### Press [ON/OFF] on the front panel.

The ending screen appears, and [ON/OFF] on the front panel turns off.



When you connected the Disklavier control unit to your piano with the MIDI cables, turn off your piano.

#### Note:

Be sure to wait 5 seconds before turning the Disklavier control unit back on.

## Compatible Media Format for the Removable Media

### Compact Disc

The Disklavier control unit can play songs on commercial audio CDs and data CDs (such as PianoSoft·PlusAudio).

- The audio CDs should be formatted in CD-DA.
- The data CDs should be formatted in ISO 9660 Level 1.

### USB Flash Memory

You can use commercially available USB flash memories to store song data. The USB flash memory should be formatted in FAT16 or FAT32 file system.

### USB Hard Disk

You can use commercially available USB hard disk drives to store song data or make a backup of song data. The USB hard disk drive should be formatted in FAT32 file system.

### Floppy Disk (Optional)

With the optional USB floppy disk drive, you can use 3.5" 2DD or 2HD floppy disks to store song data. The floppy disk should be formatted in MS-DOS.

#### Note:

If the external medium contains a number of albums or songs, it may take some time for the Disklavier control unit to recognize them.

#### Note:

Do not insert or remove the USB media while reading or writing data. Make sure that reading or writing has finished before doing so.

## Compatible File Format

---

The Disklavier control unit can handle these three types of file format:

### SMF0

Standard MIDI File format 0 for playback and recording. The name of the file should have an extension as “.MID” or “.mid.”

### SMF1

Standard MIDI File format 1 for playback only. The name of the file should have an extension as “.MID” or “.mid.”

### E-SEQ

Format developed by Yamaha, for playback only. The name of the file should have an extension as “.FIL” or “.fil.”

## Basic Precautions for Using CDs

---

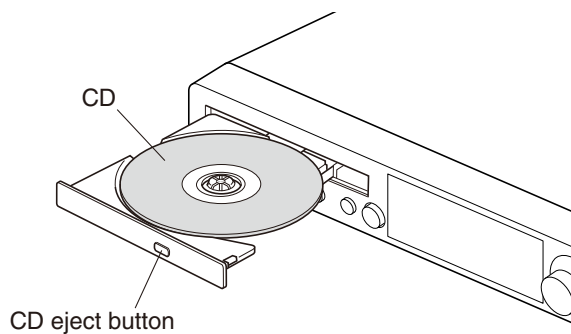
### ■ Handling CDs

In order to protect data stored on compact discs from damage or loss, handle them with care, and observe the following precautions.

- Do not touch the surface of a CD.
- Do not expose CDs to extreme temperatures or humidity. The working temperature range is between 4°C and 52°C (40°F and 125°F).
- Wipe CDs with a clean, dry cloth before playback.
- Remove the CD from the CD drive before turning off the Disklavier control unit.

### ■ Loading a CD

- 1** Press the CD eject button on the front panel to open the CD tray.



- 2** Place a CD on the tray, and then close the tray.

## Types of Playable Software

---

### PianoSoft and PianoSoft-Plus

When piano songs such as those contained in PianoSoft and PianoSoft-Plus software are played back on the Disklavier, the piano parts are actually played by the Disklavier keyboard, and the keys move up and down as though they were being played by an invisible performer. The ensemble parts (contained in PianoSoft-Plus software) are played by the internal tone generator and are heard from optional monitor speakers.



### PianoSoft-PlusAudio

PianoSoft-PlusAudio songs are recorded using two channels, an analog MIDI channel for the piano parts and an audio channel for instrumentals and vocals. When they are played back on the Disklavier, the piano parts are played by the Disklavier keyboard as with PianoSoft and PianoSoft-Plus songs, and all other instrumental and vocal parts are heard from optional monitor speakers just like a normal stereo system.



### SmartPianoSoft

SmartPianoSoft contains a recorded piano accompaniment to the commercial CDs, and the acoustic accompaniment will play back matching with the commercial CD. You can also record your own accompaniment for your favorite commercial CDs at home; play your Disklavier as you listen to a CD, and SmartPianoSoft will match the music together during playback, essentially adding you to famous performances.



### Standard Audio CDs

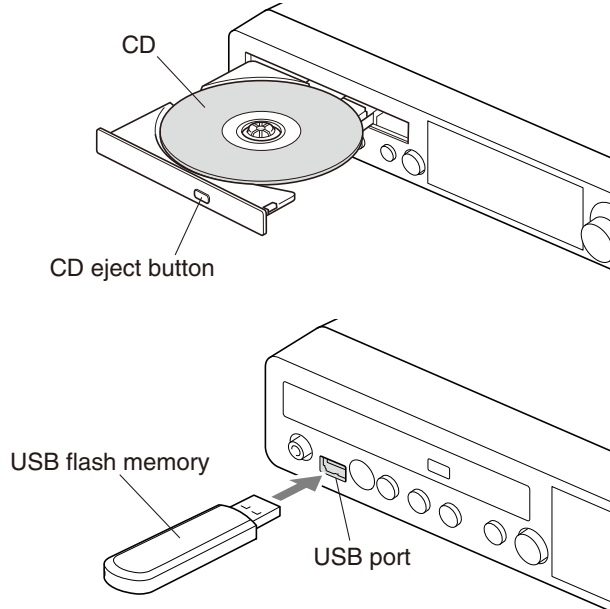
Standard audio CDs contain two audio channels (L and R), and are both heard from optional monitor speakers just like a normal stereo system. In other words, the Disklavier can be used to play CDs in place of a stereo system.



## Selecting Medium and Their Contents

[SELECT]

### 1 Insert a desired medium.



### 2 Press [SELECT].

The media selection screen appears with the current selected medium highlighted.



### 3 Select a desired medium with the cursor buttons ([ ◀ ] [ ▶ ]).



The following media are available:

| Medium        | Description   |
|---------------|---|
| Memory        | Internal flash memory   |
| CD            | Audio CD or data CD   |
| USB1,<br>USB2 | USB flash memory or USB HDD (USB1 indicates the first inserted one, and USB2 indicates the second.) |
| Playlist      | Playlist in the internal flash memory   |
| D-Radio       | DisklavierRadio   |
| FromToPC      | Network folder in the internal flash memory   |

#### Note:

“D-Radio” is available only on models of which the control unit is replaced with the Disklavier control unit.



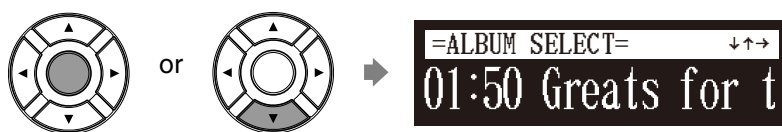
See Chapter 3 “Basic Song Playback – Listening to the DisklavierRadio” on page 30.



See Chapter 11 “Media Management – Copying Song File from a Personal Computer to the Disklavier Control Unit” on page 101.

**4** Press [ENTER] or [▼].

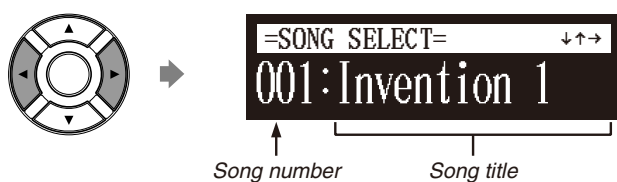
The album selection screen appears.

**5** Select a desired album with the cursor buttons ([◀] [▶]).

To return to the media selection screen, press [▲].

**6** Press [ENTER] or [▼].

The song selection screen appears.

**7** Select a desired song with the cursor buttons ([◀] [▶]).

To return to the album selection screen, press [▲].

**8** Press [ENTER].

The selected song is loaded.

**Note:**

The maximum number of the selectable albums in a medium is 99.

**Note:**

You can also select albums directly using the number keypad on the remote control. See Chapter 3 “Basic Song Playback – Using the Number Keypad” on page 25.

**Note:**

The maximum number of the selectable songs in an album is 999.

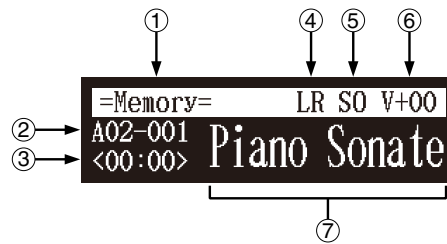
**Note:**

You can also select songs directly using the number keypad on the remote control. See Chapter 3 “Basic Song Playback – Using the Number Keypad” on page 25.

## Basic Song Playback

### ■ Song Playback Screen

Here are a few things that you will often see during playback.



#### ① Media

The selected medium is displayed here.

#### ② Album/Song Number

The number of the selected album and song is displayed here.

| Display | Description   |
|---------|---|
| Axx-yyy | xx: album number (01 to 99)<br>yyy: song number (001 to 999)    |
| Pxx-yyy | xx: playlist number (01 to 99)<br>yyy: song number (001 to 999) |

#### ③ Counter

Playing time is indicated in one of two formats.

| Display | Description                   |
|---------|-------------------------------|
| xx:yy   | Minutes (xx) and seconds (yy) |
| xxx-y   | Measures (xxx) and beats (y)  |

#### ④ Song Type

The type of the selected songs is displayed here.

| Display | Description                         |
|---------|-------------------------------------|
| LR      | PianoSoft                           |
| XP      | PianoSoft recorded on the PRO model |
| PS      | SmartPianoSoft                      |
| SK      | SmartKey                            |
| YM      | PianoSoft·PlusAudio                 |
| AU      | Stereo audio                        |

#### ⑤ Song Format

The format of the selected song is displayed here.

| Display | Description                       |
|---------|-----------------------------------|
| S0      | SMF (Standard MIDI File) format 0 |
| S1      | SMF (Standard MIDI File) format 1 |
| ES      | E-SEQ format                      |

#### ⑥ Volume

The current volume setting is displayed here.

#### ⑦ Song Title

The title of the selected song is displayed here. If the title is long, it scrolls across the display.

## Using the Number Keypad

Album or song selection screen **Number button**

You can also select albums or songs directly with the number keypad on the remote control.

**Press the corresponding number button, then press [ENTER].**

For example, to select album number 5, first press [0], then [5], then [ENTER] in the album selection screen.



To select song number 36, first press [0], then [3], then [6], then [ENTER] in the song selection screen.



**Note:**

If you enter a number higher than the existed, the last album or song appears.

## Starting Playback

**[PLAY]**

**Press [PLAY/PAUSE] on the front panel or [PLAY] on the remote control.**

[PLAY/PAUSE] on the front panel lights green, and the numerical value of the counter advances.



At the end of the song, the Disklavier control unit selects the next song automatically and continues playback.

After playback the last song in the album, playback stops.

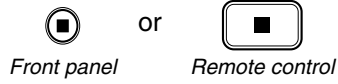
**Note:**

If your piano is in the Silent Piano™ function mode, the damper pedal does not move. However, the damper effect is effective for the piano tone.

## Stopping Playback

During playback **[STOP]**

Press **[STOP]**.



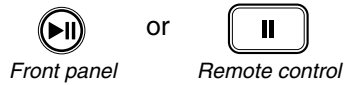
Playback stops, and the song returns to the beginning.

[PLAY/PAUSE] on the front panel turns off, and the counter is reset to "00:00" or "001-1."

## Pausing Playback

During playback **[PAUSE]**

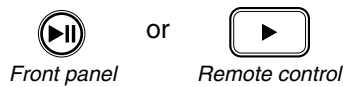
**1** Press **[PLAY/PAUSE]** on the front panel, or **[PAUSE]** on the remote control.



Playback pauses.

[PLAY/PAUSE] on the front panel flashes, and the counter stops counting.

**2** Press **[PLAY/PAUSE]** on the front panel or **[PLAY]** on the remote control to continue playback.



## Fast Preview & Review

During playback **[FORWARD]** or **[REVERSE]**

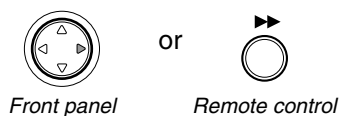
During playback, fast preview and review allow you to quickly search through a song **while listening to the sound**. This is useful for locating a desired position within a song.

### Note:

No sound is produced by the piano when fast-previewing or reviewing PianoSoft-PlusAudio CDs.

### ■ Fast Preview

- 1** To preview, hold [▶] on the front panel or press **[FORWARD]** on the remote control.

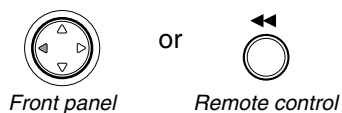


- 2** Release [▶] on the front panel, or press **[FORWARD]** on the remote control again to return to normal playback.

If a song is previewed all the way to the end, it will be paused at the end of the song.

### ■ Fast Review

- 1** To review, hold [◀] on the front panel or press **[REVERSE]** on the remote control.



- 2** Release [◀] on the front panel, or press **[REVERSE]** on the remote control again to return to normal playback.

If a song is reviewed all the way to the beginning, it will be paused at the beginning of the song.

## Fast Forward & Reverse

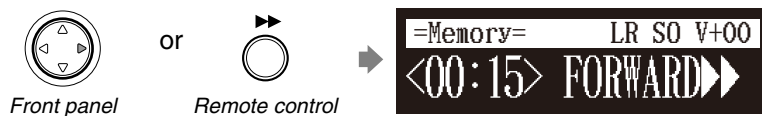
Stop or pause mode **[FORWARD] or [REVERSE]**

In the stop or pause mode, fast forward and reverse allow you to quickly locate a desired position in a song.

Reverse can also be used to return a song to the beginning, ready to play again.

### Fast Forward

- 1 In the stop or pause mode, hold [▶] on the front panel or press [FORWARD] on the remote control.



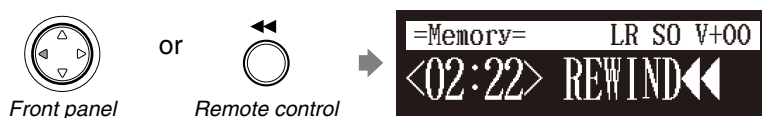
[PLAY/PAUSE] on the front panel flashes quickly and the counter shows the current position.

- 2 Release [▶] on the front panel, or press [FORWARD] on the remote control again to return to the pause mode.

If you fast forward a song all the way to the end, it will be paused at the end of the song.

### Fast Reverse

- 1 In the pause mode, hold [◀] on the front panel or press [REVERSE] on the remote control.



[PLAY/PAUSE] on the front panel flashes quickly and the counter shows the current position.

- 2 Release [◀] on the front panel, or press [REVERSE] on the remote control again to return to the pause mode.

If you reverse a song all the way to the beginning, it will be paused at the beginning of the song.

## Searching a Specific Section of a Song

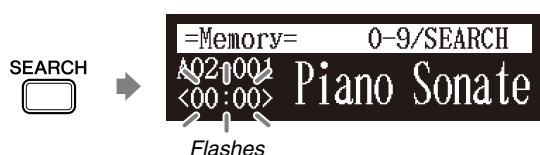
During playback or stop/pause mode **[SEARCH]**

Playback can be started from a specified point in a song. Instead of using fast forward or preview, you can use this function to go directly to a desired point within a song.

If the current song uses the “minutes and seconds” format, you specify the point in minutes and seconds. If it uses the “measures and beats” format, you specify the point in measures and beats.

### 1 Press **[SEARCH]** on the remote control.

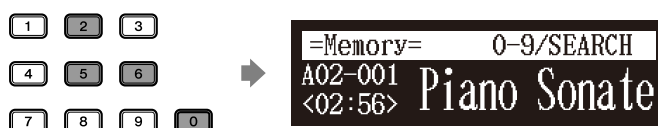
The song search screen appears with the counter flashing.



The song will be paused at the exact point as you press **[SEARCH]**.

### 2 Enter the time that you want to search for with the number keypad.

For example, to search for 2:56 (minutes and seconds), first press [0], then [2], [5], and [6] when the counter is in the “minutes and seconds” format.



For example, to search for 52-3 (measures and beats), first press [0], then [5], [2], and [3] when the counter is in the “measures and beats” format.



### 3 Press **[SEARCH]** again.



The position of the song goes to the specified point.

#### Note:

If you enter a value higher than the entire song time, the search goes to the end of the song.



## Listening to the DisklavierRadio

Media selection screen "D-Radio"

You can listen to streaming broadcasts of music, with many channels of music contents.

### 1 Select "D-Radio" in the media selection screen.

The channel selection screen appears.

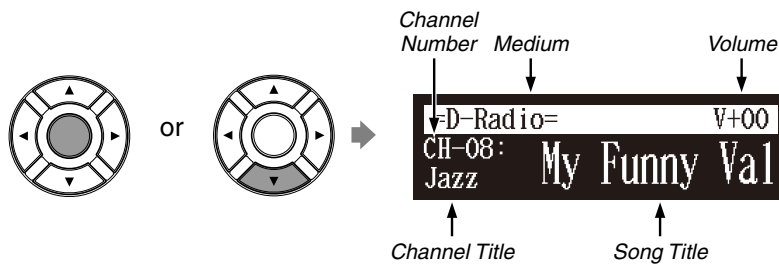


### 2 Press [ < ] or [ > ] or [+ / YES] or [- / NO] to select a channel.

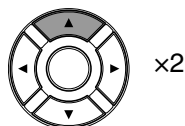


### 3 Press [ENTER] or [ v ] to begin the broadcast of the selected channel.

The DisklavierRadio screen appears.



### 4 Press [ ▲ ] twice to stop the broadcast and return to the media selection screen.



#### Note:

DisklavierRadio is available only on models of which the control unit is replaced with the Disklavier control unit.



To enjoy the DisklavierRadio, first you need to connect to the Internet. See Chapter 5 "Internet Direct Connection (IDC) – Connecting the Disklavier to the Internet" on page 35.



To select a medium, see Chapter 3 "Basic Song Playback – Selecting Medium and Their Contents" on page 22.

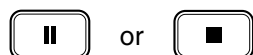
## ■ Muting the Sound

### 1 Press [PAUSE] or [STOP].

“MUTE” appears on the upper right of the screen.



### 2 Press [PAUSE] or [STOP] again to release muting.



#### Note:

Streaming broadcasts continue during muting. Therefore, the song broadcasted when releasing muting may differ from the one when muting.

## Adjusting the Volume

[VOLUME +] or [VOLUME -]

You can adjust volume with the dial on the front panel or with the remote control as described below. Since all piano songs are recorded at the maximum volume level of 0, volume can be decreased down to -10, the softest volume at which the piano can play.

For ensemble songs, the volume of the piano and internal XG tone generator are adjusted simultaneously, so it is a good idea to first balance the volume of the piano and XG tone generator.

For songs on PianoSoft·PlusAudio, you should first balance the volume of the MIDI piano and audio parts.

#### Note:

This setting does not affect manual playing.



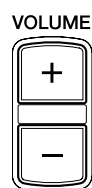
See Chapter 6 “Advanced Song Playback – Adjusting the Volume Balance among the Keyboard Playing, Ensemble Sound, and Software Playback” on page 48.

### 1 Press [VOLUME +] or [VOLUME -] on the remote control.

The main volume setting screen appears.



### 2 Press [VOLUME +] or [VOLUME -] to adjust the volume.



Volume can be adjusted in a range of -10 to 0.

#### Note:

You can also use the dial on the front panel to adjust the volume.

#### Note:

When the volume is set to -10, there may be a slight delay in sound production following key strokes, and the Disklavier control unit may skip some notes. Furthermore, at this volume setting, touch strength does not affect note dynamics.

# Basic Recording

A song that you play on the Disklavier can be recorded and the recorded song can be easily saved for the selected medium. Furthermore, you can title your new recording for simple distinguish before recording.

## Recording a New Song

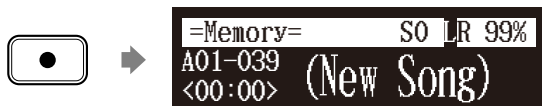
[RECORD]

You can save a new song that you play for an album.

### 1 Select a destination medium and album.

### 2 Press [RECORD].

The recording standby screen appears, and [RECORD] on the front panel lights red and [PLAY/PAUSE] flashes in green.



The level appears in the format section as soon as you play a keyboard or press a pedal.

### 3 Press [PLAY].



[PLAY/PAUSE] stops flashing.  
The Disklavier is now ready for you to play.

### 4 Start playing your song.

Recording will start automatically as soon as you touch a key. The counter starts to advance.



### 5 Press [STOP] when you finish playing your song.



The recorded song is loaded.

#### Note:

You cannot record a song on the playback model.

#### Note:

Up to 999 songs can be recorded in a medium.



To select a medium and album, see Chapter 3 "Basic Song Playback – Selecting Medium and Their Contents" on page 22.

#### Note:

You cannot select "CD", "Playlist" and "D-Radio" as the destination medium.

## Titling a Song at the Start of Recording

[RECORD] [FUNC.]x2

Title a new song before you start recording.

### 1 Select a destination medium and album.



To select a medium and album, see Chapter 3 “Basic Song Playback – Selecting Medium and Their Contents” on page 22.

### 2 Press [RECORD].



To rename the existing song, see Chapter 11 “Media Management – Renaming a Song” on page 88.

### 3 Press [FUNC.] twice in the recording standby screen.

The song title editing screen appears.



### 4 Enter a title to a new song.



You can enter up to 64 characters.  
Follow the instructions in “Entering Characters” on next page.

### 5 Press [PLAY] after title determined.

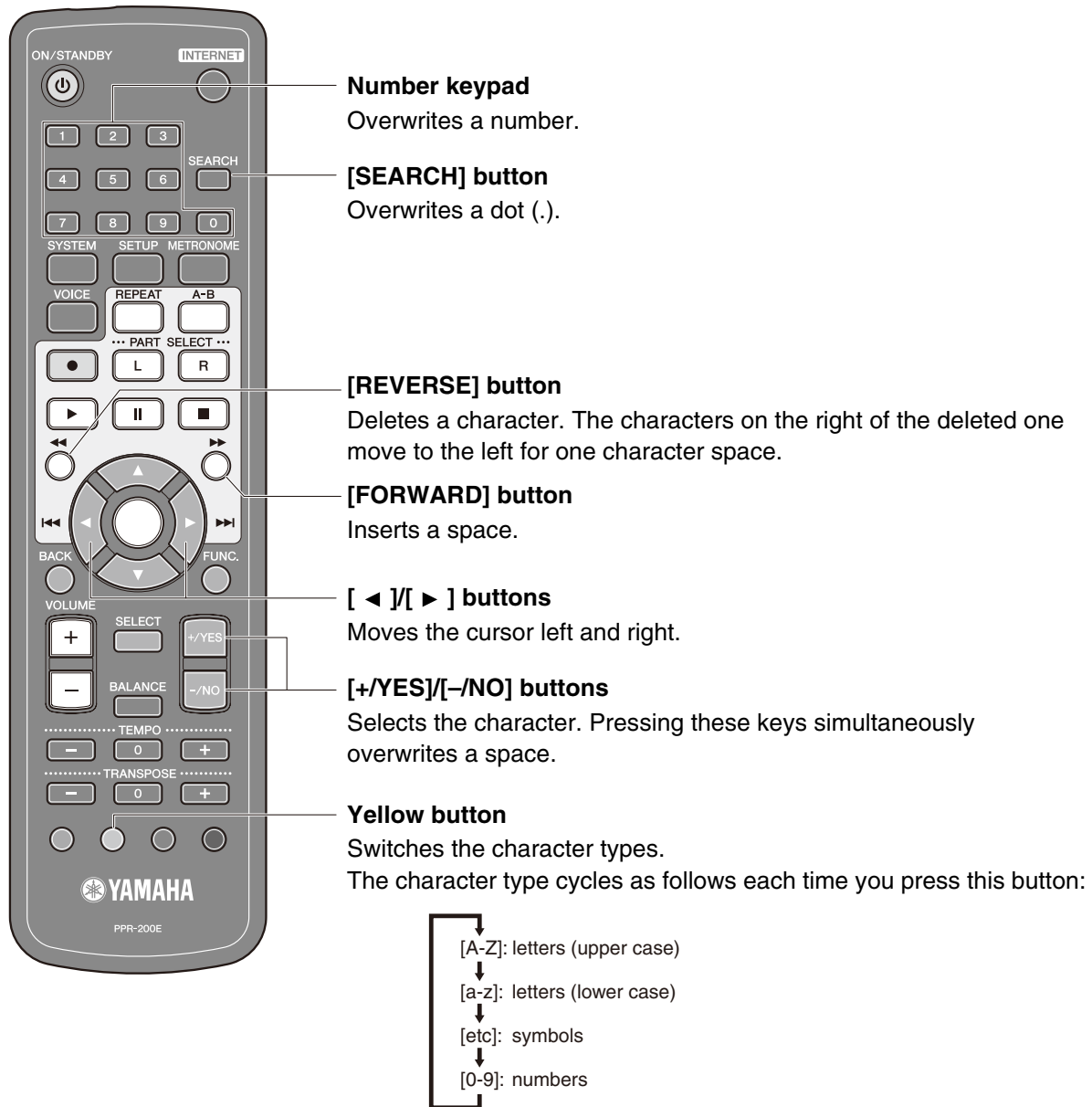


Recording begins.

## ■ Entering Characters

### How to Enter Characters with the Remote Control

The following illustration shows how to enter characters with the remote control.



### Available Characters

The following table shows which characters are available.

| Character Type                   | Characters |   |   |   |    |   |   |   |   |   |   |   |   |
|----------------------------------|------------|---|---|---|----|---|---|---|---|---|---|---|---|
| Letters<br>(Upper Case)<br>[A-Z] | Space      | A | B | C | D  | E | F | G | H | I | J | K | L |
|                                  | M          | N | O | P | Q  | R | S | T | U | V | W | X | Y |
| Letters<br>(Lower Case)<br>[a-z] | Space      | a | b | c | d  | e | f | g | h | i | j | k | l |
|                                  | m          | n | o | p | q  | r | s | t | u | v | w | x | y |
| Symbols<br>[etc]                 | Space      | ! | ” | # | \$ | % | & | ' | ( | ) | * | + | , |
|                                  | -          | . | / | : | ;  | < | = | > | ? | _ | @ |   |   |
| Numbers<br>[0-9]                 | Space      | 0 | 1 | 2 | 3  | 4 | 5 | 6 | 7 | 8 | 9 |   |   |

# Internet Direct Connection (IDC)

By connecting to the Internet, you can enjoy a streaming broadcast or download update programs directly. Internet Direct Connection is available only on models of which the control unit is replaced with the Disklavier control unit.

## What is Internet Direct Connection (IDC)?

Internet Direct Connection (IDC) is a feature that allows you to connect your Disklavier directly to the Internet. Internet Direct Connection users are able to listen to a streaming broadcast (DisklavierRadio), and receive valuable information such as product updates. Your Disklavier can be upgraded remotely as new technologies and services are developed through the IDC service.

**Note:**

Internet Direct Connection (IDC) is available only on models of which the control unit is replaced with the Disklavier control unit.

## Obtaining an ID and Password for the IDC Service (IDC Registration)

To use the IDC service, initial registration is required using an Internet-connected computer.

Please register at the following website:

**<https://member.yamaha.com/myproduct/regist/>**

Once you have an IDC account, you will interact with that account using the remote control. To use the full IDC service, you are required to enter your registered ID (e-mail address) and password with the remote control.

**Note:**

If you have already registered for the IDC service with any other instrument (such as the Clavinova), you do not need to register again. You can use your ID and password obtained through that registration.

**Note:**

Some IDC service functions do not require an ID and password.

## Connecting the Disklavier to the Internet

You can connect the Disklavier to a full-time online Internet connection (ADSL, optical fiber, cable Internet, etc.) via a router or a modem equipped with a router.

### ■ Preparations

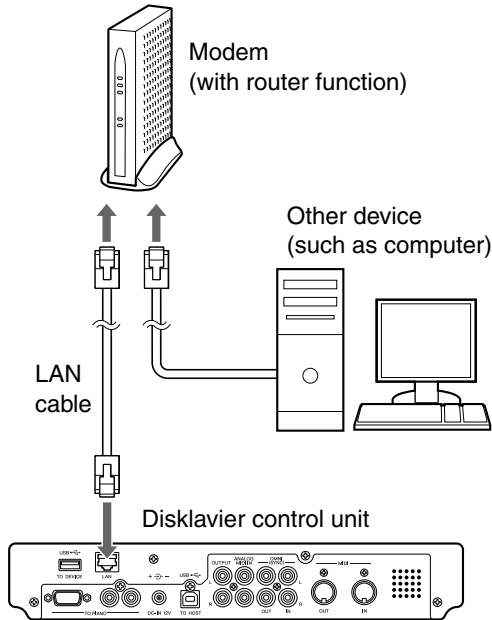
- To use the Internet connection, you will first need to subscribe to an Internet service or provider.
- Use a computer to obtain and configure Internet service. You cannot obtain Internet service or configure router settings on a local area network using the Disklavier control unit itself.
- Use an STP (shielded twisted pair) cable to connect the control unit and a router.
- Before connecting the LAN cable, make sure to turn off (or shut down) the Disklavier control unit.

## Internet Direct Connection (IDC)

### ■ Connecting the Disklavier Control Unit to the Internet

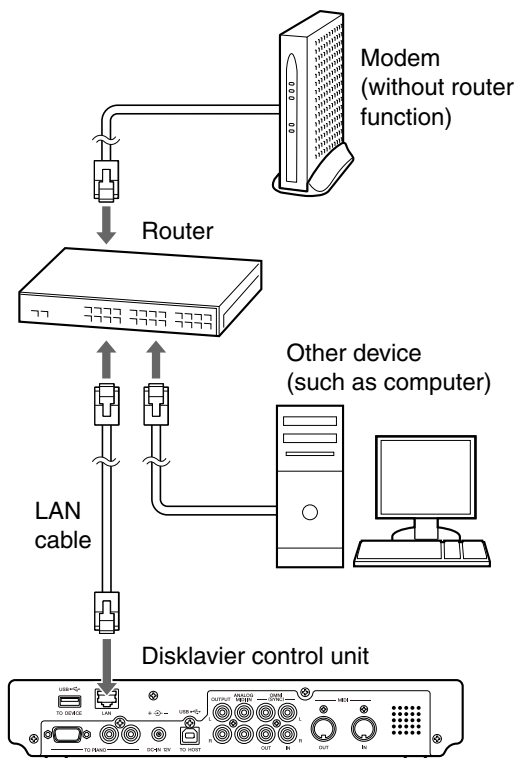
#### Connection example 1:

Using a modem with router function



#### Connection example 2:

Using a modem without router function



#### Note:

Depending on the contract with your Internet provider, you may not be able to connect two or more devices (for example, a computer and this unit) to the Internet. Please check your contract or contact your Internet provider for further information.

#### Note:

Some types of modems (such as ADSL modems or cable modems) have multiple ports for connecting two or more devices (such as computer, musical instrument, etc.). If your modems have only one port, an optional router or hub is required in order to connect several devices simultaneously.

#### Note:

Use an STP (shielded twisted pair) cable for connection.

For further information on the Internet connection (only a wired LAN connection is supported), visit the Yamaha Disklavier website:

<http://services.music.yamaha.com/radio/>

## ■ Notes on Network Security

The Disklavier control unit attempts to achieve a balance between security and usability in its network implementation. However, a determined hacker may be able to defeat these security measures and utilize the network of the purchaser in an unauthorized manner. Since each network is different, only the purchaser can determine whether the security measures discussed here will adequately protect their network.

The purchaser acknowledges that connection to the Internet and use of the Disklavier control unit Internet features is done at the risk of the purchaser. In no event shall Yamaha, its subsidiaries or Yamaha's and/or its subsidiaries' directors, officers, or employees be responsible for unauthorized access, loss or alteration of the data of the purchaser or be liable for any damage from intrusions.

## Accessing the Internet

### [INTERNET]

Once you have established an IDC account and successfully connected your Disklavier to the Internet, you can access a special Disklavier website where you can access the DisklavierRadio, and download software updates.

### D-Radio

Select this to listen to streaming broadcasts of music, with many channels of music content. You can enjoy listening to piano performances that play continuously.

### MyAccount

Select this to log in to the IDC service. You can also refer to the help information from this option.

### Update

Select this to update the Disklavier control unit using Internet connection.

#### Note:

Free contents that do not require an ID and password are available.

#### Note:

The service contents are subject to change without prior notice.



See Chapter 3 “Basic Song Playback – Listening to the DisklavierRadio” on page 30.



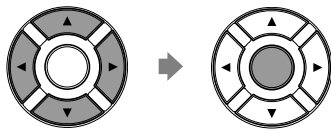
## Internet Direct Connection (IDC)

### 1 Press [INTERNET] on the remote control.

The Internet menu screen appears.



### 2 Select a desired menu with the cursor buttons ([ < ] [ > ] [ ▲ ] [ ▼ ]), then press [ENTER].



Perform operations on the screen that appears.

## Checking Your Account Information

[INTERNET] → "MyAccount"

You can confirm your current account information of IDC service. You can also log out from the IDC service.

### Login

Select this to log in to the IDC service. You need to enter your ID and password.

### Logout

If you wish to use another IDC account or prevent the current account from being used by others, select this to log out from the IDC service.

### Account Information

Select this to confirm your account information.

### Subscription Status

Select this to confirm your DisklavierRadio subscription status.

### 1 Press [INTERNET] on the remote control.

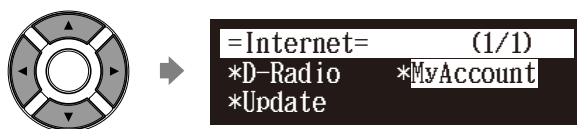
The Internet menu screen appears.



#### Note:

ID and password are not required for free contents (such as free channel of DisklavierRadio).

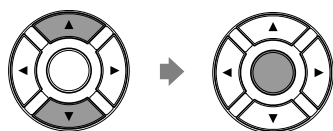
- 2** Select “MyAccount” with the cursor buttons ([ ◀ ] [ ▶ ] [ ▲ ] [ ▼ ]), then press [ENTER].



The MyAccount screen appears.



- 3** Select a desired option with the cursor buttons ([ ▲ ] [ ▼ ]), then press [ENTER].



Perform operations on the screen that appears.

## Updating the Disklavier Control Unit Using the Internet

[INTERNET] → "Update"

You can download the update program directly from the Internet and update the firmware of the Disklavier control unit.

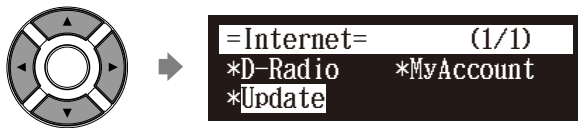
- 1** Press [INTERNET] on the remote control.

The Internet menu screen appears.



## Internet Direct Connection (IDC)

- 2** Select “Update” with the cursor buttons ([ ◀ ] [ ▶ ] [ ▲ ] [ ▼ ]), then press [ENTER].



The update screen appears if there is any update program available.



You can scroll the screen up or down with the cursor buttons ([ ▲ ] [ ▼ ]).

- 3** Following the instructions on the screen, select the option with the cursor buttons ([ ◀ ] [ ▶ ] [ ▲ ] [ ▼ ]), then press [ENTER].



The download process of the update program starts.



- 4** Shut down the Disklavier control unit with [ON/OFF] on the front panel after the download process is completed.



The update program is now prepared.

Update the firmware following the procedures in Chapter 13 “Other Settings – Updating the Disklavier Control Unit” on page 132.

## Setting the Disklavier Control Unit for the Internet Connection

[SETUP] "Network"

You can change various settings related to the Internet connection. In most cases, you do not have to change the default factory settings.

### Information

You can confirm the information of network settings.

### Use DHCP

Select the method to determine several addresses. If your router has DHCP server function, we recommend that you to select "DHCP" or "DHCP+DNS."

### DNS1/DNS2

Enter the address of the primary and secondary DNS server. These settings must be made when Use DHCP is set to "DHCP+DNS" or "MANUAL."

### IPAddr./SubMask/Gateway

Enter the address of the control unit, subnet mask and gateway server. These settings must be made when Use DHCP is set to "MANUAL."

### Proxy/Proxy Port

Enter the name and the port number for the proxy server. These settings are necessary only when a proxy server is located in your local network.



To use the Internet connection, inquire of your Internet service provider.

#### Note:

For information about DNS server address, IP address, subnet mask and gateway server address, inquire of your internet service provider.

## 1 Press [SETUP] on the remote control.

The setup menu screen appears.



## 2 Select "Network" with the cursor buttons ([◀][▶][▲][▼]), then press [ENTER].

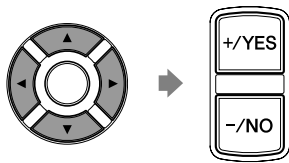


The network setting screen appears.



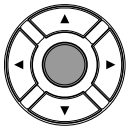
## Internet Direct Connection (IDC)

- 3** Select a desired option with the cursor buttons ([ ◀ ] [ ▶ ] [ ▲ ] [ ▼ ]), then press [+ / YES] and [- / NO] to change setting.



If you select “Information” on the network setting screen, the current network setting appears. To return to the network setting screen, press [BACK] after confirming.

- 4** Press [ENTER] to complete the operation.



- 5** Press [SETUP] to exit from the setup menu.



## Initializing Internet Settings

[SETUP] → “Reset”

If you want to initialize the Internet settings, first you must reset the Disklavier control unit to its initial factory setting. However, cookies are still remain after parameter resetting. To delete cookies, perform the appropriate operation on the reset screen.



For details on cookies, see Chapter 16 “Glossary” on page 139.



See Chapter 13 “Other Settings – Resetting the Disklavier Control Unit” on page 130.

## Changing the Playback Tempo

[TEMPO -] or [TEMPO +]

You can speed up or slow down the playback tempo. Slowing down the playback tempo can be useful when practicing a difficult piano part.

These tempo settings remain in effect until recording is started, another medium or album is selected, or the Disklavier control unit is turned off.

### 1 Press [TEMPO -] or [TEMPO +] on the remote control.

The tempo setting screen appears.



### 2 Press [TEMPO -] or [TEMPO +] to adjust the tempo.



Playback tempo can be adjusted from -50% to +50% in 1% increments.

Press [TEMPO 0] to set to the original tempo.



#### Note:

You cannot change the playback tempo of songs on audio CDs.



Tempo changes to songs that you have recorded yourself can be made permanent. See Chapter 7 “Advanced Recording – Changing the Default Tempo” on page 65.

#### Note:

You can also use the dial on the front panel to adjust the tempo.

## Playing Back Songs in a Different Key (Transposition)

[TRANSCOPE -] or [TRANSCOPE +]

Playback can be transposed up or down by up to two octaves. This is useful, for example, when you want to sing along (karaoke) in a different key from the original recording.

Transposition changes remain in effect until recording is started, another medium or album is selected, or the Disklavier control unit is turned off.

#### Note:

This function cannot be used to transpose songs from external devices connected to the OMNI IN jacks, or on audio CDs.

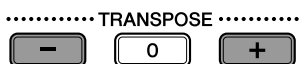
## Advanced Song Playback

- 1 Press [TRANPOSE -] or [TRANPOSE +] on the remote control.

The transposition setting screen appears.

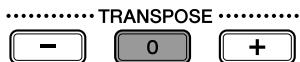


- 2 Press [TRANPOSE -] or [TRANPOSE +] to change the key.



Playback can be transposed in half-step increments up or down two octaves (-24 key to +24 key).

Press [TRANPOSE 0] to set to the original key.



**Note:**

You can also use the dial on the front panel to adjust the key.

## Repeating Song Playback

**[REPEAT]**

There are three repeat modes (ALL, RPT, RND) as described below. You can use these functions for entertainment or study purpose.

Repeat mode settings remain in effect until recording is started, another medium or album is selected, or the Disklavier control unit is tuned off.

- 1 Press [REPEAT] on the remote control.

The repeat setting screen appears.



**2** Press [REPEAT] to select repeat modes.

The following options are available:

| Option | Description  |
|--------|--|
| ALL    | Repeats all songs on the selected album.                                 |
| RPT    | Repeats selected song.   |
| RND    | Shuffles the order of songs on the selected album and repeats the cycle. |
| OFF    | Plays back songs normally.   |

**3** Press [PLAY] to start repeat playback.**4** To cancel the repeat mode, press [REPEAT] until "OFF" appears on the screen.

## Repeating a Specific Section of a Song (A-B Repeat)

During playback **[A-B]**

In the A-B repeat, playback is repeated between two specified points in a song: point A and point B. This function is useful when practicing or memorizing a difficult section of a song.

Once specified, points A and B are saved until another song is selected, recording is started, or the Disklavier control unit is turned off.

**1** To set point A, play back a song and press [A-B] on the remote control when the desired point is reached.

Point A is set.

The A-B repeat setting screen appears with the "B" flashing.





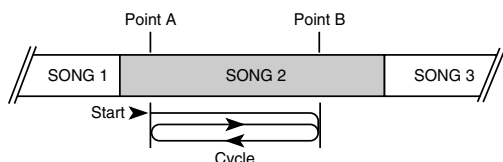
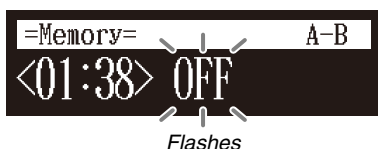
## Advanced Song Playback

**2** To set point B, press [A-B] again.

Point B is set.



Playback starts from point A, continues up to point B and, returns to point A and playback starts repeatedly.

**3** To cancel the A-B repeat, press [A-B] so that “OFF” flashes on the screen.

Pressing [BACK] also cancels the point setting, and returns to the song playback screen.

**Note:**

You cannot set point B that is beyond the selected song.

**Note:**

The A-B repeat is cancelled if you escape from the A-B repeat setting screen by other operations.

## Playing Back Only the Desired Piano Part

[PART SELECT L] or [PART SELECT R]

This could be useful, for example, when listening carefully to one part, and also when you practice only the left- or right-hand part while the Disklavier plays the other.

### ■ Cancelling the Piano Part

**1** Select the desired song.**2** Press [PART SELECT L] or [PART SELECT R] on the remote control to cancel a part.

The part cancellation screen appears with the corresponding part canceled.



To select a song, see Chapter 3 “Basic Song Playback – Selecting Medium and Their Contents” on page 22.

## Notes of displays:

| Display | Description                                    |
|---------|--|
| L       | Left hand part                                 |
| R       | Right hand part                                |
| P       | Pedal part                                     |
| ON      | Plays part                                     |
| OFF     | Cancels part                                   |
| G       | Plays part with guide (only for SmartKey song) |
| ---     | No plays on part                               |

- 3** To replay the cancelled part, press [PART SELECT L] or [PART SELECT R] again so that “ON” appears on the screen.



- 4** Press [BACK] to return to the song playback screen.



## ■ Cancelling the Pedal Part

- 1** On the part cancellation screen, press [▶] to select “P=.”



- 2** Press [-/NO] to cancel a pedal part.

**Note:**

Guide part can be set on the models capable of the SmartKey playback.

**Note:**

For the SmartKey song, “ON”, “OFF” and “G” appear sequentially each time you press [PART SELECT L] or [PART SELECT R].

## Advanced Song Playback

- 3** To replay the pedal part, press [+ / YES] to select “ON” with the cursor is on “P=.”



- 4** Press [BACK] to return to the song playback screen.



## Adjusting the Volume Balance among the Keyboard Playing, Ensemble Sound, and Software Playback

### [BALANCE]

Besides adjusting the overall volume, the volume balance among the different sound sources as described below can be adjustable.

- TG:** Adjusts the volume of the ensemble sound reproduced by the tone generator (TG) of the Disklavier control unit.
- Audio:** Adjusts the volume of the accompaniment or standard audio sound pre-recorded in the software (CDs).
- Voice:** Adjusts the volume of the ensemble voice when you play using the voice function.

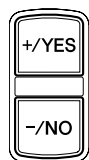
### ■ Adjusting the TG Balance

- 1** Press [BALANCE] on the remote control.

The TG balance setting screen appears.



- 2** Press [+ / YES] and [- / NO] to adjust the volume of the tone generator.



Tone generator volume can be adjusted in a range of 10 to 127.

#### Note:

You cannot adjust the volume balance during the DisklavierRadio playback.



See Chapter 8 “Advanced Piano Playing – Playing the Disklavier with an Ensemble Voice” on page 69.

#### Note:

You can also use the dial on the front panel to adjust the volume.

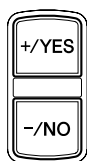
## ■ Adjusting the Audio Balance

### 1 Press [BALANCE] twice on the remote control.

The audio balance setting screen appears.



### 2 Press [+ / YES] and [- / NO] to adjust the volume of the audio.



Audio volume can be adjusted in a range of 10 to 127.

**Note:**

You can also use the dial on the front panel to adjust the volume.

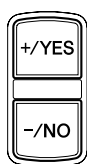
## ■ Adjusting the Voice Balance

### 1 Press [BALANCE] three times on the remote control.

The voice balance setting screen appears.



### 2 Press [+ / YES] and [- / NO] to adjust the volume of the voice.



Voice volume can be adjusted in a range of 0 to 127.

**Note:**

You can also use the dial on the front panel to adjust the volume.

## Adjusting the Pitch of Audio

During playback **[FUNC.]**

You can temporarily adjust the pitch of the song contains audio (PianoSoft·PlusAudio, SmartPianoSoft) or an audio CD for your listening pleasure.

Pitch adjustments are effective until another medium or album is selected, recording is started, or the Disklavier control unit is turned off.

### Note:

This function cannot be used to adjust the pitch of external audio CDs connected to the OMNI IN jacks.

### 1 During the song playback, press [FUNC.] on the remote control.

The audio pitch setting screen appears.



### 2 Press [+ / YES] and [- / NO] to change the audio pitch.



Audio pitch can be adjusted in a range of -50 cent to +50 cent (one semitone as 100 cent).

## Adjusting the L/R Balance of Audio

During playback **[FUNC.]**

You can temporarily adjust the L/R balance of an audio CD.

Balance adjustments are effective until another song is selected, recording is started, or the Disklavier control unit is turned off.

### 1 During the song playback, press [FUNC.] several times.

The audio pan setting screen appears.



## 2 Press [+ / YES] and [- / NO] to change the audio pan.



The following pan settings are available:

| Option | Description  |
|--------|--|
| Left   | Audio of the L channel is output to both of the L and R channels.                                |
| Center | Audio of the L channel is output to the L channel, and the R channel is output to the R channel. |
| Right  | Audio of the R channel is output to both of the L and R channels.                                |

## Using the Timer Play

[SETUP] → "TimerPlay"

You can program your Disklavier to start or stop playback of a song at various specified times. All you need to do is register up to a maximum of 99 timer settings, and your Disklavier will perform them unattended. This function is called "timer play."

The following describes how to play back the first album in the internal flash memory at 8:15 AM.

### 1 Press [SETUP] on the remote control.

The setup menu screen appears.



#### Note:

The internal calendar must be set in advance in order for the timer play to function. See Chapter 2 "Getting Started – Setting the Internal Calendar" on page 16.

#### Note:

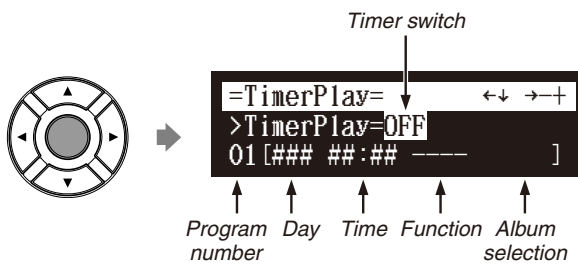
The control unit must be turned on in advance in order for the timer play to function. The timer play cannot turn on/off the control unit.

## Advanced Song Playback

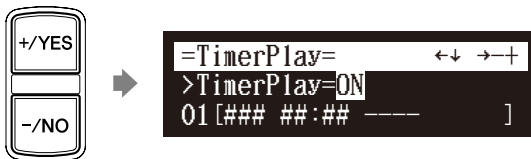
- 2** Select “TimerPlay” with the cursor buttons ([ ◀ ] [ ▶ ] [ ▲ ] [ ▼ ]), then press [ENTER].



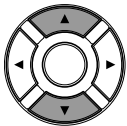
The timer play setting screen appears.



- 3** Confirm that the cursor is on the timer switch, then press [+ / YES] and [- / NO] to switch the timer play on and off.

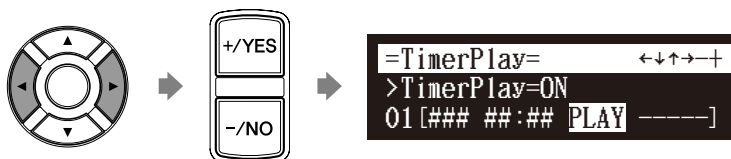


- 4** Press [ ▲ ] and [ ▼ ] to select the desired program number.



You can scroll the screen up or down, and select the desired program number.

- 5** Press [ ◀ ] and [ ▶ ] to move the cursor to the function parameter, then press [+ / YES] and [- / NO] to select the desired function.



The following functions are available:

|      |  |
|------|--|
| PLAY | Starts playback of songs.                |
| STOP | Stops playback of songs.                 |
| RND  | Starts playback of songs at random.      |
| OFF  | Turns off the Disklavier (standby mode). |

When “PLAY” or “RND” is selected, the album selection parameter appears.

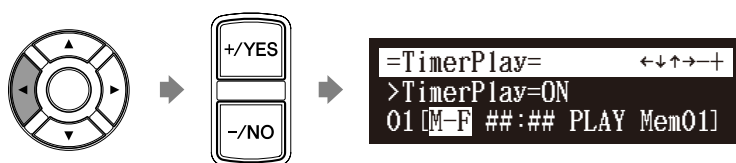
- 6** Press [ ▶ ] to move the cursor to the album selection parameter, then press [+ / YES] and [- / NO] to select the desired album.



The following selections are available:

|               |   |
|---------------|---|
| Mem01 - Mem99 | Albums (01 - 99) in the internal flash memory.            |
| Lst01 - Lst99 | Playlists (01 - 99) created in the internal flash memory. |
| Radio         | The last DisklavierRadio channel you have listened to.    |
| ----          | Current selected song.                                    |

- 7** Press [ ◀ ] to move the cursor to the day parameter, then press [+ / YES] and [- / NO] to select the desired day.



The following day settings are available:

|     |  |
|-----|--|
| ALL | The timer play functions on every day of the week. |
| MON | The timer play functions only on Monday.           |
| TUE | The timer play functions only on Tuesday.          |
| WED | The timer play functions only on Wednesday.        |
| THU | The timer play functions only on Thursday.         |
| FRI | The timer play functions only on Friday.           |
| SAT | The timer play functions only on Saturday.         |
| SUN | The timer play functions only on Sunday.           |
| M-F | The timer play functions on Monday thru Friday.    |
| M-S | The timer play functions on Monday thru Saturday.  |

**Note:**

“Radio” is available only on models of which the control unit is replaced with the Disklavier control unit.

**Note:**

You cannot select “Radio” if you select “RND” in step 5.

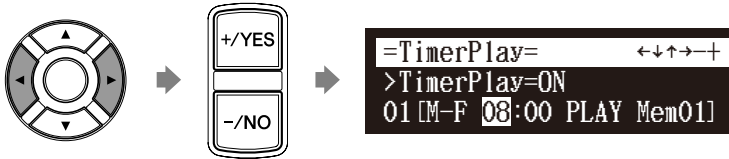
**Note:**

When “Radio” is selected, the Disklavier will connect to the Internet one minute prior to the time you have set, and the channel selection screen appears. DisklavierRadio will begin to play at the designated time.

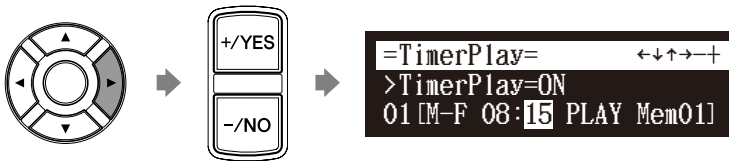


## Advanced Song Playback

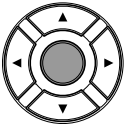
- 8** Press [▶] to move the cursor to the hour parameter, then press [+ / YES] and [- / NO] to set hours.



- 9** Press [▶] to move the cursor to the minute parameter, then press [+ / YES] and [- / NO] to set minutes.



- 10** Press [ENTER] to return to the setup menu screen.



- 11** Press [SETUP] to exit from the setup menu.



### ■ About Song Playback Screen

When the song playback is stopped — with the timer play function is set to ON and the current time is displayed — “T” flashes to the right side of the current time.



↑  
Indicates that the timer play is on.

## Skipping the Blank Part at the Beginning of a Song

[SETUP] "Playback"

When there is a blank part created at the beginning of the recorded song, turning on this function automatically skips the unwanted part and starts playback from the actual beginning of the song.

### 1 Press [SETUP] on the remote control.

The setup menu screen appears.



### 2 Select "Playback" with the cursor buttons ([◀][▶][▲][▼]), then press [ENTER].



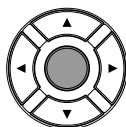
The playback setting screen appears with the cursor flashing.



### 3 Press [+ / YES] and [- / NO] to change the setting.



### 4 Press [ENTER] to return to the setup menu screen.



### 5 Press [SETUP] to exit from the setup menu.



## SmartKey™ Playback

Select a SmartKey song [PLAY]

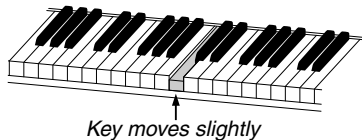
Special SmartKey software uses all the “SmartKey” features to create an exciting way in which non-players can learn to play simple melodies, one note at a time, without the need for written music. SmartKey software does this by partially depressing the piano key to signal which note should be played. The Disklavier then waits for you to press this key before it continues to the next note in the melody (If you miss the movement of the key, the Disklavier will repeat the movement until you press the key). When you press the key, the Disklavier will reward you with ear tickling phrases, incredible harmonies, and lush arpeggios to give you the aural and visual image of a complete high-quality performance. In short, it SHOWS you which key to play, WAITS for you to play that key before it continues, and REWARDS you with music. It is like having an eternally patient music teacher showing your fingers which notes to play.

### 1 Select a desired SmartKey song.

### 2 Press [PLAY].



Playback stops, and the key to play next moves slightly.



The key to play flashes in the counter.



### 3 Play the key that the keyboard indicates.

This will continue until the song is finished. Notice that the Disklavier patiently waits for you to play the right key before proceeding to the next key. Also, notice that if you happen to miss the cue, it will gently remind you what the key is every few seconds until you play the right key.

#### Note:

SmartKey playback is available only when the control unit of models with the SmartKey feature is replaced with the Disklavier control unit. Models capable of SmartKey playback:

- Disklavier Mark III Series (DU1A)
- Disklavier Mark III Series Full-Function Models
- Disklavier Mark III Series Standard Models
- Disklavier Mark III Series PRO Models



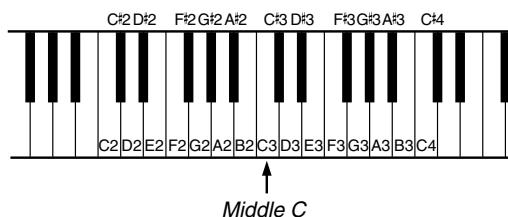
To select a song, see Chapter 3 “Basic Song Playback – Selecting Medium and Their Contents” on page 22.



To cancel the SmartKey playback, see Chapter 6 “Advanced Song Playback – Playing Back Only the Desired Piano Part” on page 46.

## ■ Key notation

As a reference, “C3” is middle “C”, which means “C4” is an octave above middle “C” and so on.



## Inactivating the Key Movement during Playback

During playback ► [FUNC.] ►

During playback of a song, keys normally move in accordance with the playback of the respective note's key. For models equipped with the Silent Piano™ function, you can select an option of stopping this key movement during the song playback with the Silent Piano™ function. This enables you, for example, to play along with the song being played back, to add your own improvisation, or to create a four-hand duet.

### Note:

Key movement can only be inactivated on models of which the control unit is replaced with the Disklavier control unit.

### Note:

You can change the setting for key movement from the “Playback” option in the setup menu.

- 1 During the song playback with the Silent Piano™ function, press [FUNC.] several times.

The key motion setting screen appears.



- 2 Press [+ / YES] and [- / NO] to change the setting.



# Advanced Recording

This chapter describes further functions for the advanced piano recording such as playing and measuring the current playing song tempo with the metronome, recording the left-hand part and the right-hand part separately.

## Recording with the Internal Metronome

[METRONOME] → [RECORD]

You can use the metronome to record songs.

Songs recorded with the metronome will be in the measures and beats format.

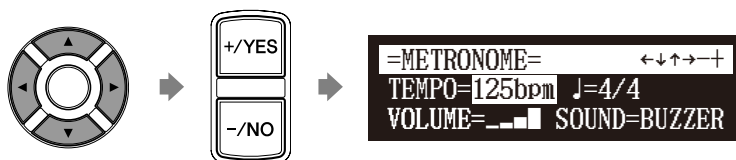
All metronome parameters are reset when the Disklavier control unit is switched off.

### 1 Press [METRONOME] on the remote control.

The metronome setting screen appears.

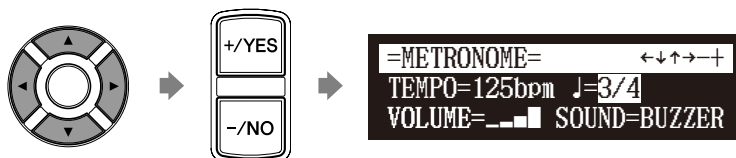


### 2 To change the tempo, move the cursor to the tempo parameter (“TEMPO”) with the cursor buttons ([◀] [▶] [▲] [▼]), then press [+ / YES] and [- / NO].



The tempo can be adjusted in a range of 30 bpm to 400 bpm.

### 3 To change the beat, move the cursor to the beat parameter (“J”) with the cursor buttons ([◀] [▶] [▲] [▼]), then press [+ / YES] and [- / NO].

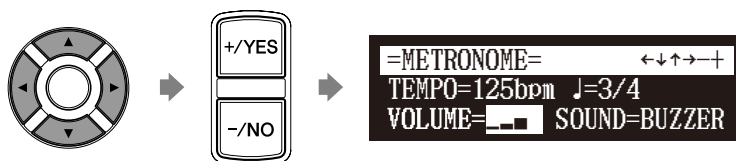


The following beat settings are available: 1/4, 2/4, 3/4, 4/4, 5/4, 6/4, 7/4, 8/4, 9/4.

#### Note:

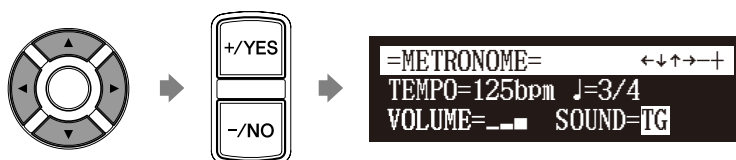
The tempo parameter displayed on the metronome setting screen indicates the number of beats in a minute, and one beat represents a quarter. When you play a song written in different measure unit from quarter note, change the setting (e.g. When playing a song in 3/2, set beat to 6/4).

- 4** To change the volume, move the cursor to the volume parameter (“VOLUME”) with the cursor buttons ([ ◀ ] [ ▶ ] [ ▲ ] [ ▼ ]), then press [+ / YES] and [- / NO].



The volume can be adjusted in 4 steps.

- 5** To change the sound, move the cursor to the sound parameter (“SOUND”) with the cursor buttons ([ ◀ ] [ ▶ ] [ ▲ ] [ ▼ ]), then press [+ / YES] and [- / NO].



The following sound settings are available: BUZZER, TG.

- 6** Press [RECORD] in the metronome setting screen.

The metronome recording setting screen appears.

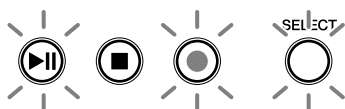


- 7** Press [PLAY].



Recording begins immediately.

[PLAY/PAUSE], [REC] and [SELECT] on the front panel flash simultaneously at the first beat of the metronome.



- 8** Start playing your song.

- 9** Press [STOP] when you finish playing your song.



The recorded song is loaded.

## Recording the Left and Right Parts Separately

[RECORD] [FUNC.]

When recording an L/R song, the left- and right-hand parts can be recorded separately. Either part can be recorded first, and the pedals can be recorded with the first part.

While you record the second part, the first part will play back for monitoring.

If the left-hand or right-hand part is difficult to play at normal speed, the first part can be recorded at a slow tempo, and then the tempo changed afterwards to record the second part at the normal song speed.

**This section describes how to record the left-hand part first then the right-hand part second.**

### ■ Recording the Left-Hand Part

**1** Select a destination medium and album.

**2** Press [RECORD].



**3** Press [FUNC.] in the recording standby screen.

The part selection screen appears.



**4** Make sure that the left-hand part is set to be recorded (“L=REC”), then press [PLAY].



This Disklavier is now ready for you to play the left-hand part.

**5** Start playing your song.

Recording will start as soon as you touch a key.

**6** Press [STOP] when you finish playing your song.



The L/R song with the left-hand part recorded is saved onto the selected album.

Next, record the right-hand part overwriting the left-hand part that you have just recorded.



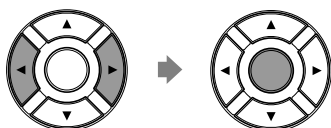
To select a medium and album, see Chapter 3 “Basic Song Playback – Selecting Medium and Their Contents” on page 22.



In the case you want to title your new song before recording, see Chapter 4 “Basic Recording – Titling a Song at the Start of Recording” on page 33, to rename the title after recording, see Chapter 11 “Media Management – Renaming a Song” on page 88.



If you want to record your L/R song using the metronome, see Chapter 7 “Advanced Recording – Recording with the Internal Metronome” on page 58.

**7** Press [RECORD].**8** Press [◀] and [▶] to select the L/R song with the left-hand part that you have just recorded, then press [ENTER].**9** Press [FUNC.] in the recording standby screen.

The part selection screen appears.



The part that has already been recorded is displayed as "L=PLY."

**10** Press [PART SELECT R] to record the right-hand part.

The part set to "REC" will be recorded.

**11** Press [PLAY].

Playback of the left-hand recorded part starts immediately, so be sure that you are ready to play the right-hand part along with it.



## Advanced Recording

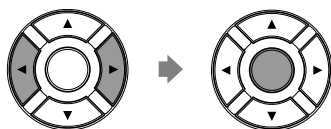
**12** Press [STOP] when you finish playing your song.

The following screen appears.



The following table gives a description of each of the options.

| Option | Description  |
|--------|--|
| SAVE   | The second part is saved with the first part under the current song number, overwriting the previously saved first part. |
| NEW    | The second part is saved under a new song number. The first part is kept under the previous song number.                 |
| CANCEL | The second part is discarded. The first part is kept under the previous song number.                                     |

**13** Press [◀] and [▶] to select an option, then press [ENTER].

The right-hand part is saved as indicated or canceled.

## Recording the Left and Right Parts Together (Setting a Split Point)

[RECORD] → [FUNC.] →

You can also record an L/R song by playing the left- and right-hand parts simultaneously. In this case, a keyboard split point is set, and the notes played on the left-hand side of the split point are saved as the left-hand part, and notes played on the right-hand side of the split point are saved as the right-hand part.

**1** Select a destination medium and album.**2** Press [RECORD].**3** Press [FUNC.] in the recording standby screen.

The part selection screen appears.



To select a medium or album, see Chapter 3 “Basic Song Playback – Selecting Medium and Their Contents” on page 22.



In the case you want to title your new song before recording, see Chapter 4 “Basic Recording – Titling a Song at the Start of Recording” on page 33, to rename the title after recording, see Chapter 11 “Media Management – Renaming a Song” on page 88.



If you want to record your L/R song using the metronome, see Chapter 7 “Advanced Recording – Recording with the Internal Metronome” on page 58.

#### 4 Press [PART SELECT R] to set both parts to record.

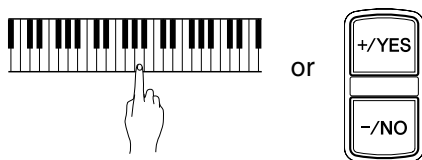
The split point setting screen appears.



The above display shows that the default keyboard split point is note C3, or middle C. In this case, note C3 and notes below are saved as the left-hand part and notes above C3 are saved as the right-hand part, as shown in the following figure.



#### 5 To change the split point, press a key on the keyboard or [+ / YES] and [- / NO] to select a different key.



The split point can be set from note A-1 to note C7.

#### 6 Press [PLAY].



The Disklavier is now ready for you to play.

#### 7 Starts playing your song with the left- and right-hand parts and the pedal part simultaneously.

Recording will start as soon as you touch a key.

#### 8 Press [STOP] when you finish playing your song.



The recorded song is loaded.

## Re-recording One Part

[RECORD] Select the L/R song [PART SELECT L] or [PART SELECT R]

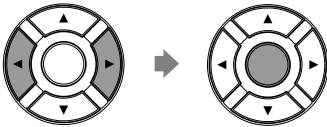
You can re-record the only one part left-hand or the right-hand of the existing L/R song.

**1** Select a desired medium and album.

**2** Press [RECORD].



**3** Press [◀] and [▶] to select the L/R song that you want to re-record, then press [ENTER].



**4** Press [PART SELECT L] or [PART SELECT R] to select the part to re-record.



The part set to “REC” will be re-recorded.

**5** Press [PLAY].



Recording will start immediately, so be sure that you are ready to play the part.



To select a medium and album, see Chapter 3 “Basic Song Playback – Selecting Medium and Their Contents” on page 22.

## 6 Press [STOP] when you finish playing your song.

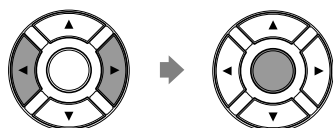
The following screen appears.



The following table gives a description of each of the options.

| Option | Description  |
|--------|--|
| SAVE   | The re-recorded part is saved with the other existing part under the current song number, overwriting the selected part. |
| NEW    | The re-recorded part is saved under a new song number. The existing parts are kept under the current song number.        |
| CANCEL | The re-recorded part is discarded. The existing parts are kept under the current song number.                            |

## 7 Press [◀] and [▶] to select an option, then press [ENTER].



The re-recorded part is saved as indicated or canceled.

## Changing the Default Tempo

[RECORD] → Select the song → [FUNC.]×3

This function allows you to change the default tempo of a song and save the change. It should not be confused with the playback tempo function described in Chapter 6 “Advanced Song Playback – Changing the Playback Tempo” in which tempo changes are lost when the Disklavier control unit is turned off.

The tempo of a song can be changed many times. This function can be used when recording a very complex song that is difficult to play at a fast tempo. First, record the song at a tempo you can manage, then change the tempo afterwards. For example, you could record a difficult left-hand part at a slow tempo, use this function to change the tempo, then record the right-hand part at the normal tempo.

If a song’s time format is minutes and seconds, tempo changes are specified as a percentage of the original tempo.

If a song’s time format is measures and beats, tempo changes are specified in beats per minute.

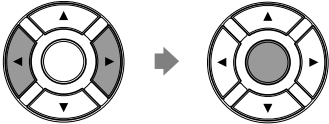
## Advanced Recording

**1** Select a desired medium and album.

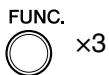
**2** Press [RECORD].



**3** Press [◀] and [▶] to select the song in which you want to change the tempo, then press [ENTER].



**4** Press [FUNC.] three times.



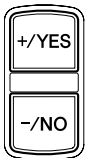
For **measures and beats**, the current song tempo (bpm) is shown.



For **minutes and seconds**, the current song tempo is shown as "000%."



**5** Press [+ / YES] and [- / NO] to change the tempo.



[+ / YES] increases the tempo, and [- / NO] decreases the tempo.

For **measure and beats**, the tempo range is from 30 bpm to 400 bpm.

For **minutes and seconds**, the tempo range is from -75% to +242%.



To select a medium or album, see Chapter 3 "Basic Song Playback – Selecting Medium and Their Contents" on page 22.

**Note:**

You cannot change the beat setting on the prerecorded songs.

## 6 Press [STOP] to save the tempo change.

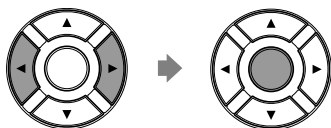
The following screen appears.



The following table gives a description of each of the options.

| Option | Description   |
|--------|---|
| SAVE   | The song is saved at its new tempo under the current song number.   |
| NEW    | The song is saved at its new tempo under a new song number. The original song is kept under the previous song number. |
| CANCEL | The song with a new tempo is discarded. The original song is kept under the previous song number.                     |

## 7 Press [◀] and [▶] to select an option, then press [ENTER].



To change the tempo again or to reset the original tempo, repeat steps 1 to 6.

## Playing the Disklavier along with the Internal Metronome

### [METRONOME]

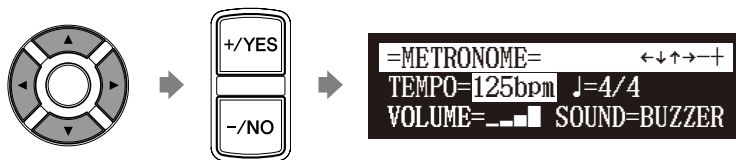
The internal metronome helps you playing along the meter (beat) and the tempo you set. Also the volume of the metronome can be adjusted.

#### 1 Press [METRONOME] on the remote control.

The metronome setting screen appears and the metronome starts to click.

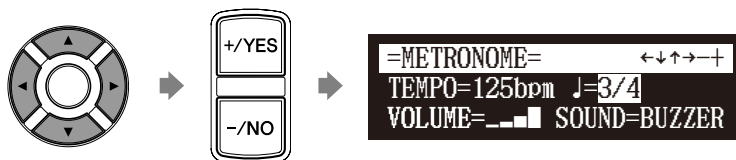


#### 2 To change the tempo, move the cursor to the tempo parameter ("TEMPO") with the cursor buttons ([◀] [▶] [▲] [▼]), then press [+ / YES] and [- / NO].



The tempo can be adjusted in a range of 30 bpm to 400 bpm.

#### 3 To change the beat, move the cursor to the beat parameter ("J") with the cursor buttons ([◀] [▶] [▲] [▼]), then press [+ / YES] and [- / NO].

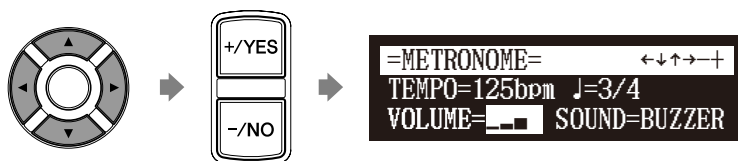


The following beat settings are available: 1/4, 2/4, 3/4, 4/4, 5/4, 6/4, 7/4, 8/4, 9/4.

#### Note:

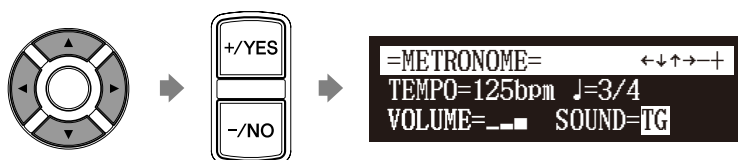
The tempo parameter displayed on the metronome setting screen indicates the number of beats in a minute, and one beat represents a quarter. When you play a song written in different measure unit from quarter note, change the setting (e.g. When playing a song in 3/2, set beat to 6/4).

- 4** To change the volume, move the cursor to the volume parameter (“VOLUME”) with the cursor buttons ([ ◀ ] [ ▶ ] [ ▲ ] [ ▼ ]), then press [+ / YES] and [- / NO].



The volume can be adjusted in 4 steps.

- 5** To change the sound, move the cursor to the sound parameter (“SOUND”) with the cursor buttons ([ ◀ ] [ ▶ ] [ ▲ ] [ ▼ ]), then press [+ / YES] and [- / NO].



The following sound settings are available: BUZZER, TG

- 6** To cancel this function, press [METRONOME] again.



## Playing the Disklavier with an Ensemble Voice

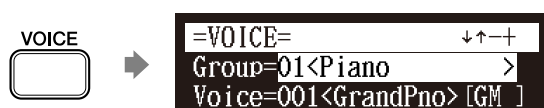
### [VOICE]

The [VOICE] on the remote control lets you assign a voice from the internal XG tone generator to accompany the piano while you play. You will hear in unison the piano sound coming from the Disklavier and an ensemble voice produced by the internal XG tone generator. This is sometimes referred to as voice layering or unison.

The internal XG tone generator offers 480 instrumental voices and 11 drum kits for playing the keyboard.

- 1** Press [VOICE] on the remote control.

The voice selection screen appears.



### Note:

You cannot use the voice function on the playback model.



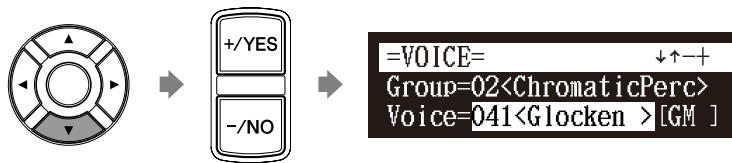
For details on voice groups and voices, see Chapter 17 “Internal Tone Generator Voices” on page 142.



## Advanced Piano Playing

**2** Press [+ / YES] and [- / NO] to select a voice group.

Changing the voice group displays the top voice of that group in the voice parameters.

**3** To change the voice, press [▼] to move the cursor to the voice parameter, then press [+ / YES] and [- / NO].

If necessary, adjust the volume of the voice in the voice balance setting screen.

**4** To cancel this function, press [VOICE] again.

See Chapter 6 “Advanced Song Playback – Adjusting the Volume Balance among the Keyboard Playing, Ensemble Sound, and Software Playback” on page 48.

**Note:**

The voice function is cancelled if you escape from the voice selection screen by other operations.

# Video Synchronization

You can record a song synchronized with the video, and enjoy a synchronized playback of piano and video later on. This feature offers great listening experience with sight.

## Video Synchronized Recording

[SETUP] → "Audio/O" → **Connect a camcorder and a DVD recorder**

By recording a song played on the Disklavier synchronized with the video recording, later on, you can enjoy piano playback with the video. First set up the camcorder, the DVD recorder, and the Disklavier control unit, and then start recording by following the procedures below.



For details on video synchronized playback, see Chapter 9 "Video Synchronization – Video Synchronized Playback" on page 75.

### ■ Setting for Video Synchronized Recording

#### 1 Press [SETUP] on the remote control.

The setup menu screen appears.



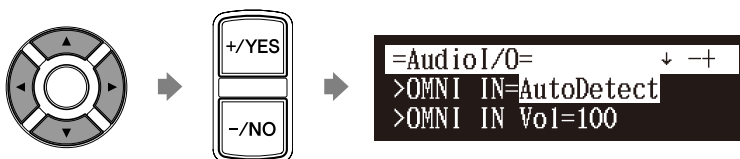
#### 2 Select "AudioI/O" with the cursor buttons ([◀][▶][▲][▼]), then press [ENTER].



The audio I/O setting screen appears.

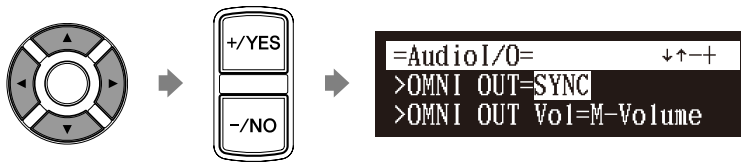


#### 3 Select "OMNI IN" with the cursor buttons ([▲][▼]), then press [+ / YES] and [- / NO] to change setting to "Auto Detect".

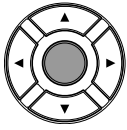


## Video Synchronization

- 4** Select “OMNI OUT” with the cursor buttons ([ ▲ ] [ ▼ ]), then press [+ / YES] and [- / NO] to change setting to “SYNC”.



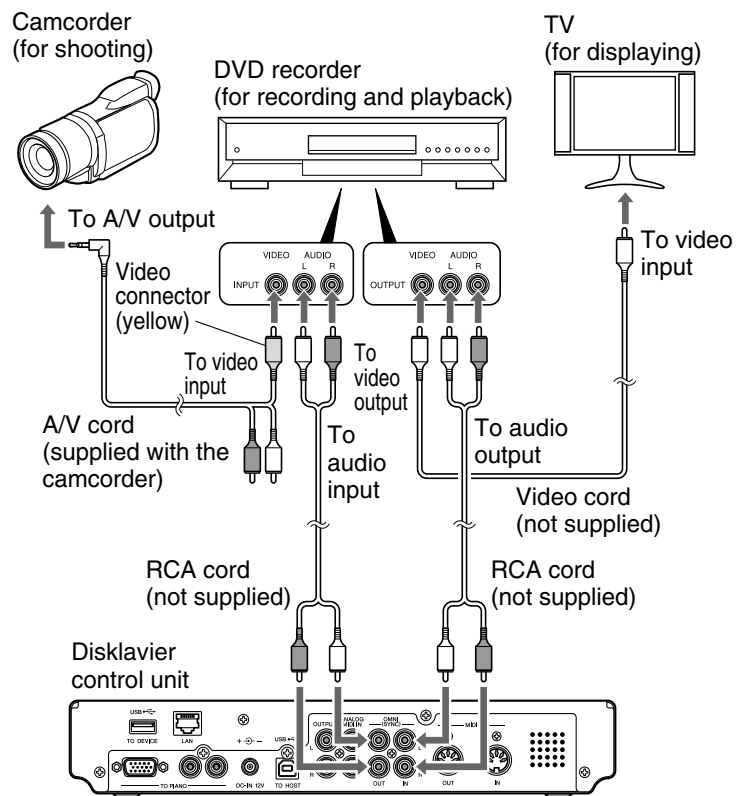
- 5** Press [ENTER] to complete the operation.



- 6** Press [SETUP] to exit from the setup menu.



- 7** Connect a camcorder and a DVD recorder to the Disklavier control unit.

**Note:**

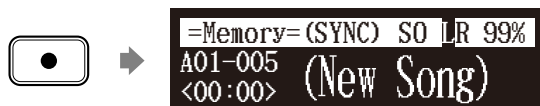
Confirm the shape of input/output connectors on the camcorder and the DVD recorder, and prepare the cables fit to them.

## ■ Starting Video Synchronized Recording

### 1 Select a destination medium and album.

### 2 Press [RECORD].

The video synchronized recording standby screen appears, and [RECORD] on the front panel lights red, and [PLAY/PAUSE] flashed in green.

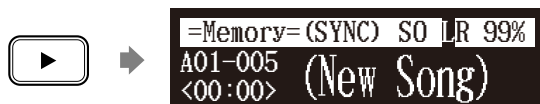


### 3 Set the camcorder to video shooting mode.

### 4 Select the video input on the DVD recorder which the camcorder is connected to, then start recording on the DVD recorder.

### 5 Press [PLAY].

[PLAY/PAUSE] stops flashing, and the counter starts to advance.



### 6 Wait for approximately ten seconds, and then start playing your song.

This step is necessary for synchronization of the song and the video playback, and should not be omitted.

### 7 Press [STOP] when you finish playing your song.



### 8 Stop recording on the DVD recorder.

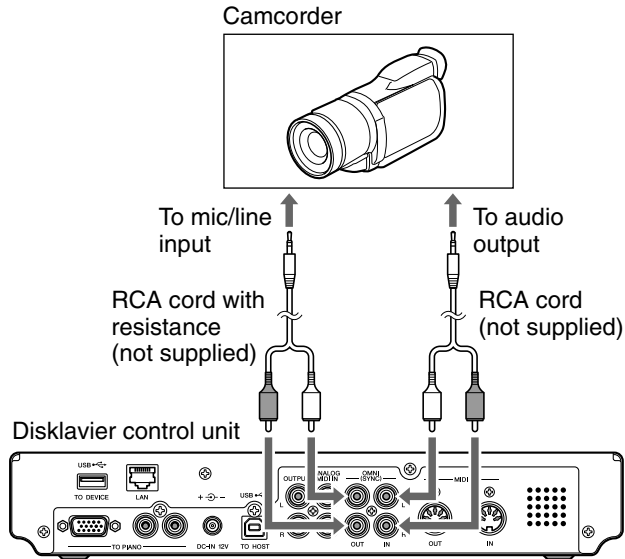


To select a medium and album, see Chapter 3 “Basic Song Playback – Selecting Medium and Their Contents” on page 22.

## ■ Using the Camcorder only

If your camcorder has both mic input and audio output, you can perform video synchronized recording using the camcorder only.

1. Set the Disklavier control unit following the procedures 1 to 5 on page 71.
2. Connect a camcorder to the Disklavier control unit.



3. Select a destination medium and album.
4. Press [RECORD].
5. Start recording on the camcorder.
6. Press [PLAY].
7. Wait for approximately ten seconds, and then start playing your song.
8. Press [STOP] when you finish playing your song.
9. Stop recording on the camcorder.

## Video Synchronized Playback

You can enjoy piano playback with the video recorded on the DVD recorder.

- 1 Perform the video synchronized recording in advance.**
- 2 Make sure that the OMNI IN setting is set to “AutoDetect”.**
- 3 Turn down the volume completely on the TV if you connect the audio output of the DVD recorder to the TV.**

Turn down the volume completely on the camcorder if you use the camcorder only.

- 4 Start playback on the DVD recorder.**

Start playback on the camcorder if you use the camcorder only.

The Disklavier control unit automatically searches and selects the song paired with the video, and then starts playback as well.

```
=Memory= (SYNC)SO V+00
A01-005 PIANO005.MID
<00:03>
```

### If the piano playing is not synchronized with the video

Adjust the offset time for synchronization. See Chapter 12 “Enhancing the Disklavier by Hooking Up Other Devices – Setting the Disklavier Control Unit for Audio Data Reception/Transmission” on page 113.

### If noises (synchronized signal) are heard during playback

Turn down the signal level and re-record. See Chapter 12 “Enhancing the Disklavier by Hooking Up Other Devices – Setting the Disklavier Control Unit for Audio Data Reception/Transmission” on page 113.

#### Note:

Be sure to rewind the video cassette to locate the beginning of the recording. It may take some time before piano playback starts if you start playback halfway through the video.



See “Setting for Video Synchronized Recording” on page 71.

#### Note:

When using the song copied to the USB flash memory, it may take some time until the Disklavier control unit recognizes the information for synchronization.

#### Note:

When searching for songs for video synchronized playback from a USB flash memory, you can search from a maximum of 150 songs per USB flash memory. It is therefore recommended that you copy songs for video synchronized playback onto the internal memory. When saving onto a USB flash memory, it is recommended that you do not exceed a total of 150 saved songs per memory.

#### Note:

You cannot operate the Disklavier using the front panel or remote control during video synchronized playback. If you want to stop playback of the song, stop playback on the DVD recorder (or the camcorder).

# CD Synchronization

You can record a piano performance along with the playback of songs on commercially available CDs. Once you record a song with this feature, later on, you can enjoy piano playback along with the played back songs on the CD.

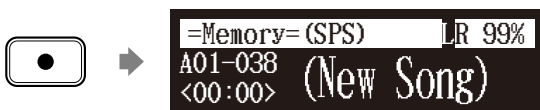
## CD Synchronized Recording

Insert an audio CD **[RECORD]**

You can record a Disklavier piano performance along with the playback of songs on commercial CDs.

- 1** Select a destination medium and album, then song in the selected album.
- 2** Insert an audio CD and select the song that you want to synchronize with.
- 3** Press **[RECORD]**.

The SPS recording standby screen appears, and **[RECORD]** on the front panel lights red, and **[PLAY/PAUSE]** flashes in green.



- 4** Select the desired part of a song, then press **[PLAY]** to start synchronizing.



Recording begins with the CD playback.

- 5** Start playing the Disklavier along with the CD playback.

- 6** Press **[STOP]** to stop recording.



The recorded song is loaded.

### Note:

The Disklavier control unit recognizes the destination album by selecting the song in it. Note that the selected song is not overwritten by this procedure.



To select a medium and album, see Chapter 3 “Basic Song Playback – Selecting Medium and Their Contents” on page 22.



To play back the performance recorded with this feature, see Chapter 10 “CD Synchronization – Adding Disklavier Accompaniment to Commercial CD Songs (PianoSmart™ Playback)” on page 77.

## Adding Disklavier Accompaniment to Commercial CD Songs (PianoSmart™ Playback)

Insert a CD → Select a SmartPianoSoft song → [PLAY]

You can add a Disklavier piano performance you recorded or on commercially available SmartPianoSoft software to the playback of songs on your favorite CDs.

- 1** Insert a desired CD that you want to synchronize with the SmartPianoSoft song.
- 2** Select a desired SmartPianoSoft song.
- 3** Press [PLAY].

Playback begins with the CD playback.



To select a song, see Chapter 3 “Basic Song Playback – Selecting Medium and Their Contents” on page 22.



# Media Management

This chapter describes how to manage contents inside the media, such as managing albums, songs and playlists.

## Managing Albums

Album selection screen [FUNC.]

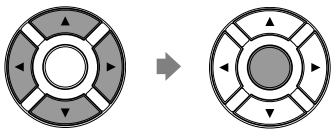
You can use the album function menu for creating, deleting and copying albums inside a medium.

### 1 Press [FUNC.] in the album selection screen.

The album function menu screen appears.



### 2 Select a desired function with the cursor buttons ([◀] [▶] [▲] [▼]), then press [ENTER].



The following functions are available:

- CopyAlbum
- DeleteAlbum
- NewAlbum
- RenameAlbum
- SortAlbum
- AddToPList
- DeleteList
- NewList
- RenameList



To select an album, see Chapter 3 “Basic Song Playback – Selecting Medium and Their Contents” on page 22.

#### Note:

Available functions vary depending on the medium you selected.



About playlists, see Chapter 11 “Media Management – Managing Playlists” on page 93.

## Making Copies of Albums

Album selection screen [FUNC.] “CopyAlbum”

You can make copies of the album to the different medium.

This function is available for albums on [Memory], [CD](CD-ROM), [USB1], [USB2] and [FromToPC].

#### Note:

Up to 99 albums can be saved in a medium.

- 1** Select “CopyAlbum” in the album function menu, then press [ENTER].

```
=ALBUM MENU= (1/2)→
*CopyAlbum *DeleteAlbum
*NewAlbum *RenameAlbum
```

The CopyAlbum screen appears.



```
=CopyAlbum= --+ENT
01:Pops Selection
->Memory >(NewAlbum)
```

- 2** Select a destination medium with [+ / YES] and [- / NO].



```
=CopyAlbum= --+ENT
01:Pops Selection
->USB1 >(NewAlbum)
```

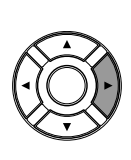
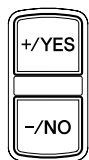
- 3a** To copy to the new album, press [ENTER].

“OK?” flashes in the first line of the screen.



```
=CopyAlbum= OK? YES/NO
01:Pops Selection
->USB1 >(NewAlbum)
```

- 3b** To add to the existing album, press [▶] to move the cursor to the album, and press [+ / YES] and [- / NO] to select the album, then press [ENTER].

```
=CopyAlbum= --+ENT
01:Pops Selection
->USB1 >07:/Album07/
```

“OK?” flashes in the first line of the screen.



```
=CopyAlbum= OK? YES/NO
01:Pops Selection
->USB1 >07:/Album07/
```

**4** Press [+ / YES] to make a copy, [- / NO] to cancel.

After a while, the completion message appears.  
Press any button to return to the album selection screen.

## Deleting Albums

Album selection screen → [FUNC.] → "DeleteAlbum"

You can delete the albums.

This function is available for albums on [Memory], [USB1], [USB2] and [FromToPC].

**1** Select "DeleteAlbum" in the album function menu, then press [ENTER].

The DeleteAlbum screen appears.

**2** Press [ENTER].

"OK?" flashes in the first line of the screen.

**3** Press [+ / YES] to delete the album, [- / NO] to cancel.

After a while, the completion message appears.  
Press any button to return to the album selection screen.

## Creating a New Album

Album selection screen [FUNC.] "NewAlbum"

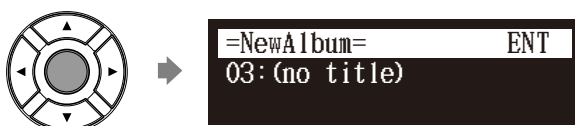
You can create a new album into the selected medium.

This function is available for albums on [Memory], [USB1] and [USB2].

- 1 Select the "NewAlbum" in the album function menu, then press [ENTER].



The NewAlbum screen appears.



- 2 Press [ENTER].

The album title editing screen appears.



- 3 Enter a title to a new album.



You can enter up to 64 characters.

Follow the instructions in "Entering Characters" on page 34.

- 4 Press [ENTER].

"OK?" flashes in the first line of the screen.



### Note:

Up to 99 albums can be created in a medium.

### Note:

If you enter the same title as the album already exists, the new album is titled in the form of "album title xx" ("xx" indicates the number).

- 5** Press [+ / YES] to create a new album, [- / NO] to cancel.



After a while, the completion message appears.  
Press any button to return to the album selection screen.

## Renaming an Album

Album selection screen → [FUNC.] → "RenameAlbum"

You can rename the albums which already named.  
This function is available only for albums on [Memory].

- 1** Select "RenameAlbum" in the album function menu, then press [ENTER].



The RenameAlbum screen appears.



- 2** Press [ENTER].

The album title editing screen appears.



**3** Enter a new title to the selected album.

```
=RenameAlbum= [a-z]
Jazz Selection
```

You can enter up to 64 characters.  
Follow the instructions in “Entering Characters” on page 34.

**4** Press [ENTER].

“OK?” flashes in the first line of the screen.



```
=RenameAlbum=OK? YES/NO
01:Jazz Selection
```

**5** Press [+ / YES] to rename, [- / NO] to cancel.

```
=RenameAlbum= ANY
Executing... → =RenameAlbum= ANY
Completed.
Press any button.
```

After a while, the completion message appears.  
Press any button to return the album selection screen.

## Rearranging the Order of Albums

Album selection screen [FUNC.] "SortAlbum"

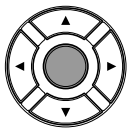
You can rearrange the order of albums that you selected.

This function is available only for albums on [Memory].

- 1 Select "SortAlbum" in the album function menu, then press [ENTER].

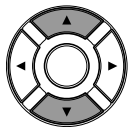
```
=ALBUM MENU=      ←(2/2)
*SortAlbum  *AddToPList
```

The SortAlbum screen appears.



```
=SortAlbum=      ↑↑ENT
06:Favorite Latin Select
07:Free Flight
```

- 2 Press [▲] and [▼] to move the albums to the desired position.



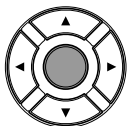
```
=SortAlbum=      ↑↑ENT
06:Favorite Latin Select
07:Free Flight
```



```
=SortAlbum=      ↑↑ENT
07:Free Flight
06:Favorite Latin Select
```

- 3 Press [ENTER].

"OK?" flashes in the first line of the screen.



```
=SortAlbum=  OK? YES/NO
08:Mike Garson Trio-Live
06:Favorite Latin Select
```

- 4 Press [+ / YES] to rearrange, [- / NO] to cancel.

```
=SortAlbum=
Executing...
```



```
=SortAlbum=  ANY
Completed.
Press any button.
```

After a while, the completion message appears.

Press any button to return to the album selection screen.

## Managing Songs

Song selection screen → [FUNC.]

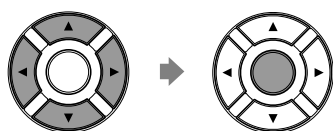
You can use the song function menu for managing the copy or the deletion songs inside the album.

### 1 Press [FUNC.] in the song selection screen.

The song function menu screen appears.



### 2 Select a desired function with the cursor buttons ([◀] [▶] [▲] [▼]), then press [ENTER].



The following functions are available:

- CopySong
- DeleteSong
- RenameSong
- SortSong
- AddToPList
- ConvertSong
- Counter
- Strip XP



To select the song, see Chapter 3 “Basic Song Playback – Selecting Medium and Their Contents” on page 22.

#### Note:

Available functions vary depending on the medium you selected.

#### Note:

If there is no available function or no song, the song function menu screen does not appear although pressing [FUNC.].



About playlists, see Chapter 11 “Media Management – Managing Playlists” on page 93.

## Making Copies of Songs

Song selection screen → [FUNC.] → “CopySong”

You can copy songs stored on an album to another.

This function is available for song in the album on [Memory], [CD](CD-ROM), [USB1], [USB2] and [FromToPC].

#### Note:

Copy-protected songs, such as PianoSoft songs, cannot be copied to a removable medium.

#### Note:

Up to 999 songs can be saved in an album.



## Media Management

- 1** Select “CopySong” in the song function menu, then press [ENTER].

```
=SONG MENU= (1/2)→
*CopySong *DeleteSongs
*RenameSongs *SortSongs
```

The CopySong screen appears.



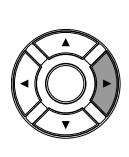
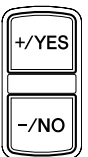
```
=CopySong= ←→+ENT
001:Mo' Art
->Memory >02:Free Flight
```

- 2** Select a destination medium with [+ / YES] and [- / NO].



```
=CopySong= ←→+ENT
001:Mo' Art
->USB1 >01: /
```

- 3** Press [▶] to move the cursor to the album, and press [+ / YES] and [- / NO] to select a destination album.

```
=CopySong= ←→+ENT
001:Mo' Art
->USB1 >02:/MyFolder
```

- 4** Press [ENTER].

“OK?” flashes in the first line of the screen.



```
=CopySong= OK? YES/NO
001:Mo' Art
->USB1 >02:/MyFolder
```

- 5** Press [+ / YES] to make a copy, [- / NO] to cancel.

```
=CopySong= Executing... → =CopySong= ANY
Completed.
Press any button.
```

After a while, the completion message appears.  
Press any button to return to the song selection screen.

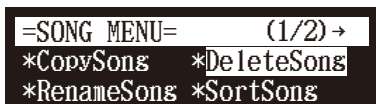
## Deleting Songs

Song selection screen → [FUNC.] → "DeleteSong"

You can delete songs stored on an album.

This function is available for songs in the album on [Memory], [USB1], [USB2], [Playlist] and [FromToPC].

- 1 Select "DeleteSong" in the song function menu, then press [ENTER].



The DeleteSong screen appears.



- 2 Press [ENTER].

"OK?" flashes in the first line of the screen.



- 3 Press [+ / YES] to delete the song, [- / NO] to cancel.



After a while, the completion message appears.  
Press any button to return to the song selection screen.

## Renaming a Song

Song selection screen → [FUNC.] → "RenameSong"

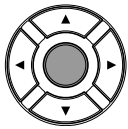
You can rename the songs which already named.

This function is available for songs in the album on [Memory], [USB1], [USB2] and [FromToPC].

- 1 Select "RenameSong" in the song function menu, then press [ENTER].

```
=SONG MENU= (1/2) →
*CopySongs *DeleteSongs
*RenameSongs *SortSongs
```

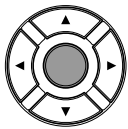
The RenameSong screen appears.



```
=RenameSongs= ENT
006:Toccat
```

- 2 Press [ENTER].

The song title editing screen appears.



```
=RenameSongs= [A-Z]
Toccat
```

- 3 Enter a new title to the selected song.

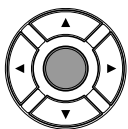
```
=RenameSongs= [a-z]
Toccat and Fugue
```

You can enter up to 64 characters.

Follow the instructions in "Entering Characters" on page 34.

- 4 Press [ENTER].

"OK?" flashes in the first line of the screen.



```
=RenameSongs= OK? YES/NO
006:Toccat and Fugue
```

- 5** Press [+ / YES] to rename, [- / NO] to cancel.



After a while, the completion message appears.  
Press any button to return to the song selection screen.

## Rearranging the Order of Songs

Song selection screen → [FUNC.] → "SortSong"

You can rearrange the order of songs in an album.

This function is available only for songs in the album on [Memory] and [Playlist].

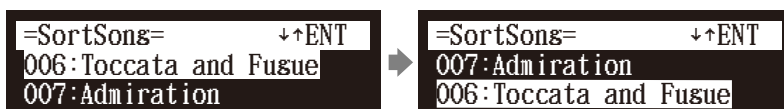
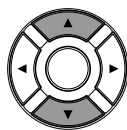
- 1** Select "SortSong" in the song function menu, then press [ENTER].



The SortSong screen appears.



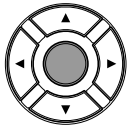
- 2** Press [▲] and [▼] to move the songs to the desired position.



## Media Management

**3** Press [ENTER].

“OK?” flashes in the first line of the screen.



```
=SortSong=  OK? YES/NO
008:Interaction
006:Toccatà and Fugue
```

**4** Press [+ / YES] to rearrange, [- / NO] to cancel.

```
=SortSong=
Executing . .
```



```
=SortSong=      ANY
Completed.
Press any button.
```

After a while, the completion message appears.  
Press any button to return to the song selection screen.

## Converting Song Format

Song selection screen → [FUNC.] → “ConvertSong”

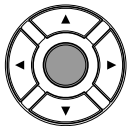
The song format can be converted to other format.

This function is available for songs in the album on [Memory], [USB1], [USB2] and [FromToPC].

**1** Select “ConvertSong” in the song function menu, then press [ENTER].

```
=SONG MENU=      ←(2/2)
*AddToPList *ConvertSong
*Counter      *Strip XP
```

The ConvertSong screen appears.



```
=ConvertSong=    -+ENT
001:Song For Students
SMFO            →E-SEQ
```

**Note:**

The converted song will be newly added to the end of the album.

## 2 Press [+ / YES] and [- / NO] to select a song format.

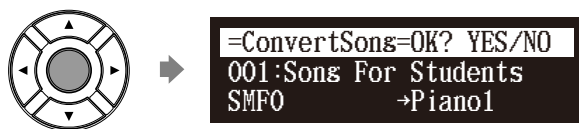


The following options are available:

| Option | Song Format   |
|--------|---|
| E-SEQ  | E-SEQ format  |
| SMF0   | SMF (Standard MIDI File) format 0                       |
| SMF1   | SMF (Standard MIDI File) format 1                       |
| Piano1 | E-SEQ format to play on all Disklavier in correct tempo |

## 3 Press [ENTER].

“OK?” flashes in the first line of the screen.



## 4 Press [+ / YES] to convert, [- / NO] to cancel.



After a while, the completion message appears.  
Press any button to return to the song selection screen.

## Changing the Counter Display

Song selection screen → [FUNC.] → “Counter”

The counter display of a song can be changed from “measures and beats”(metronome) to “minutes and seconds” or vice versa.

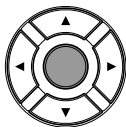
This function is available for songs in the album on [Memory], [USB1], [USB2] and [FromToPC].

## Media Management

- 1 Select “Counter” in the song function menu, then press [ENTER].

```
=SONG MENU=      ← (2/2)
*AddToPList *ConvertSongs
*Counter         *Strip XP
```

The CounterChange screen appears.



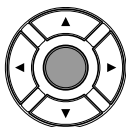
```
=CounterChange=  ENT
001:Song For Students
TIME             →METRONOME
```

TIME: minutes and seconds display

METRONOME: measures and beats display

- 2 Press [ENTER].

“OK?” flashes in the first line of the screen.



```
=CounterChange=OK?YES/NO
001:Song For Students
TIME             →METRONOME
```

- 3 Press [+ / YES] to change, [- / NO] to cancel.

```
=CounterChange=  ANY
Executing...      Completed.
                  Press any button.
```

After a while, the completion message appears.

Press any button to return to the song selection screen.

## Converting MIDI Data to a Standard Form (Strip XP)

Song selection screen → [FUNC.] → “Strip XP”

Some Disklavier pianos record highly precise control information (XP events) that becomes part of the MIDI song files. This data is used to achieve accurate playback on the Disklavier PRO model, but is not used when the file is played back on general MIDI devices. When you edit the song with external MIDI devices (for example a software sequencer), the relationship between the note data and the XP event as well as the actual performance may not be maintained. There may be cases in which songs edited in this manner cannot be played back normally, depending on the instrument’s settings. In such cases, use the Strip XP function to remove the XP event to convert the song to standard MIDI format before using it for playback. Strip XP also makes it possible to reduce the size of MIDI files when desired.

### Note:

Once the XP event is stripped, the original data cannot be restored. Before converting valuable music data, be sure to backup the original data.

- 1 Select “Strip XP” in the song function menu, then press [ENTER].



The Strip XP screen appears.



- 2 Press [ENTER].

“OK?” flashes in the first line of the screen.



- 3 Press [+ / YES] to execute, [- / NO] to cancel.



After a while, the completion message appears.  
Press any button to return to the song selection screen.

## Managing Playlists

By creating lists of your favorite songs, you can program your Disklavier to automatically play back a series of songs.

At the initial factory settings, no playlist is created in the internal flash memory. First create your own playlist, then play back that list.



To create a playlist, see Chapter 11 “Media Management – Creating a New Playlist” on page 96.



## Adding Songs/Albums to the Playlist

Album or song selection screen [FUNC.] "AddToPList"

This function is available only for songs/albums on [Memory].

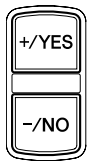
- 1 Select "AddToPList" in the album or song function menu, then press [ENTER].



The AddToPList screen appears.

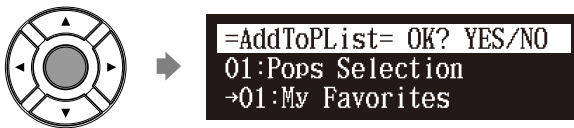


- 2 Select a destination playlist with [+ / YES] and [- / NO].



- 3 Press [ENTER].

"OK?" flashes in the first line of the screen.



- 4 Press [+ / YES] to add, [- / NO] to cancel.



After a while, the completion message appears.  
Press any button to return to the album or song selection screen.

**Note:**

Up to 999 songs can be added to a playlist.

**Note:**

You cannot add songs on media other than [Memory] directly to the playlist. First, copy songs to the internal flash memory.

**Note:**

If "NewPlaylist" is selected in step 2, the title of added album is copied to that playlist.

**Note:**

If you select "New Playlist" and add songs to it, the playlist is titled as "My Playlist."

**Note:**

The new playlist created in this procedure can be selected from "Playlist" in the media selection screen.

## Deleting a Playlist

Album selection screen → [FUNC.] → "DeleteList"

You can delete the playlists which already registered.

- 1 Select "DeleteList" in the album function menu for the playlist, then press [ENTER].



The DeleteList screen appears.

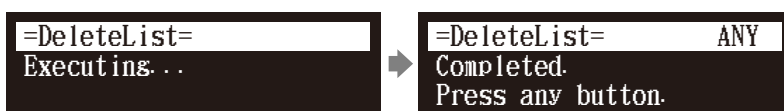


- 2 Press [ENTER].

"OK?" flashes in the first line of the screen.



- 3 Press [+ / YES] to delete the playlist, [- / NO] to cancel.



After a while, the completion message appears.  
Press any button to return to the album selection screen for the playlist.

### Note:

Even if you delete the playlist, songs or albums added to that playlist remain in the internal flash memory.

## Creating a New Playlist

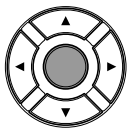
Album selection screen [FUNC.] "NewList"

You can create a new playlist for playing back your favorite songs in your selected order.

- 1 Select "NewList" in the album function menu for the playlist, then press [ENTER].

```
=ALBUM MENU= (1/1)
*DeleteList *NewList
*RenameList
```

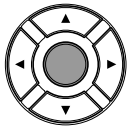
The NewList screen appears.



```
=NewList= ENT
03:(no title)
```

- 2 Press [ENTER].

The playlist title editing screen appears.



```
=NewList= [A-Z]
|
```

- 3 Enter a title to a new playlist.

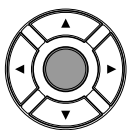
```
=NewList= [a-z]
My Best
```

You can enter up to 64 characters.

Follow the instructions in "Entering Characters" on page 34.

- 4 Press [ENTER].

"OK?" flashes in the first line of the screen.



```
=NewList= OK? YES/NO
03:My Best Collection
```

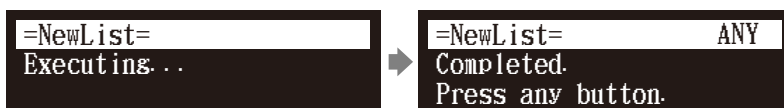
**Note:**

Up to 99 playlists can be created.

**Note:**

If you enter the same title as the playlist already exists, the new playlist is titled in the form of "playlist title [xx]" ("xx" indicates the number).

- 5** Press [+ / YES] to create a new playlist, [- / NO] to cancel.



After a while, the completion message appears.  
Press any button to return to the album selection screen for the playlist.

**Note:**

The new playlist created in this procedure can be selected from "Playlist" in the media selection screen.

## Renaming a Playlist

Album selection screen → [FUNC.] → "RenameList"

You can rename a playlist which already registered.

- 1** Select "RenameList" in the album function menu for the playlist, then press [ENTER].



The RenameList screen appears.



- 2** Press [ENTER].

The playlist title editing screen appears.



- 3** Enter a new title to the selected playlist.



You can enter up to 64 characters.  
Follow the instructions in "Entering Characters" on page 34.

## Media Management

**4** Press [ENTER].

“OK?” flashes in the first line of the screen.

**5** Press [+ / YES] to rename, [- / NO] to cancel.

After a while, the completion message appears.  
Press any button to return to the album selection screen for the playlist.

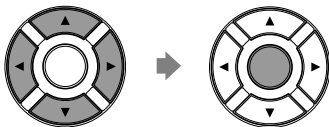
## Managing Media

Media selection screen [FUNC.]

You can use the media function menu for copying or deleting entire contents inside the media.

**1** Press [FUNC.] in the media selection screen.

The media function menu screen appears.

**2** Select a desired function with the cursor buttons ([◀] [▶] [▲] [▼]), then press [ENTER].

The following functions are available:

- CopyAll
- DeleteAll
- Format
- Refresh



To select a media, see Chapter 3 “Basic Song Playback – Selecting Medium and Their Contents” on page 22.

**Note:**

Available functions vary depending on the medium you selected.

**Note:**

If there is no available functions, the media function menu screen does not appear although pressing [FUNC.].

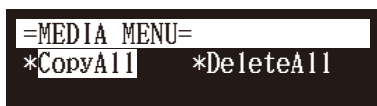
## Making Copies of the Entire Contents in a Medium

Media selection screen [FUNC.] "CopyAll"

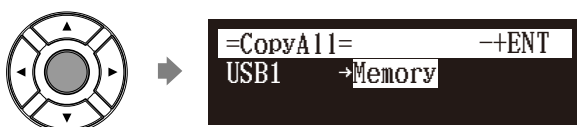
You can copy the entire contents in a medium to the another medium.

The function is available for [Memory], [CD](CD-ROM), [USB1], [USB2] and [FromToPC].

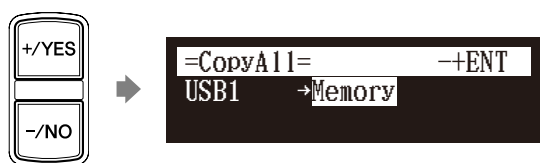
- 1 Select "CopyAll" in the media function menu, then press [ENTER].



The CopyAll screen appears.

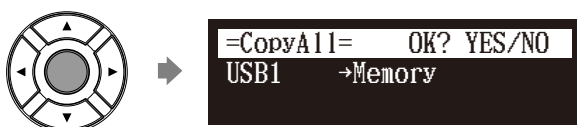


- 2 Select a destination medium with [+ / YES] and [- / NO].



- 3 Press [ENTER].

"OK?" flashes in the first line of the screen.



- 4 Press [+ / YES] to make a copy, [- / NO] to cancel.



After a while, the completion message appears.  
Press any button to return to the media selection screen.



To select a medium, see Chapter 3 "Basic Song Playback – Selecting Medium and Their Contents" on page 22.

**Note:**

Confirm that the destination medium has enough space to store the contents.

**Note:**

If the maximum number of the albums in the destination medium exceeds 99, copying stops.

## Deleting the Entire Contents in a Medium

Media selection screen [FUNC.] "DeleteAll"

You can delete the entire contents in a medium.

This function is available for [Memory], [USB1], [USB2] and [FromToPC].



To select a medium, see Chapter 3 "Basic Song Playback – Selecting Medium and Their Contents" on page 22.

- 1 Select "DeleteAll" in the media function menu, then press [ENTER].



The DeleteAll screen appears.



- 2 Press [ENTER].

"OK?" flashes in the first line of the screen.



- 3 Press [+ / YES] to delete, [- / NO] to cancel.



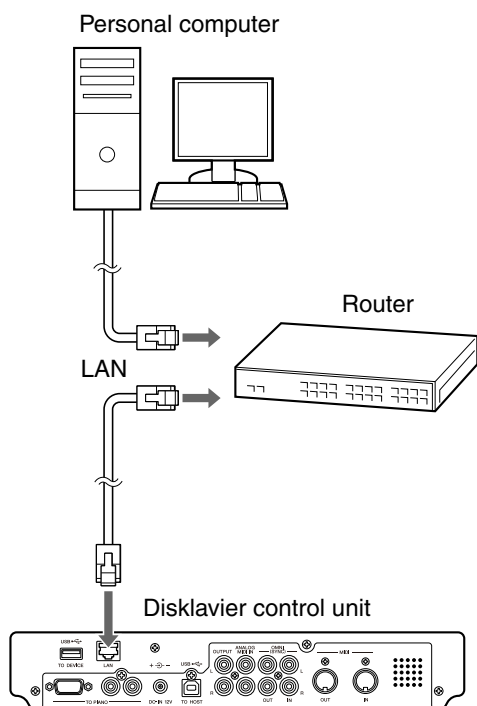
After a while, the completion message appears.

Press any button to return to the media selection screen.

## Copying Song File from a Personal Computer to the Disklavier Control Unit

You can copy song files from a Windows or Macintosh computer to a special folder on the Disklavier control unit called [FromToPC] and then play them on the Disklavier.

- 1 Connect the Disklavier control unit to a LAN (local area network) to which a personal computer with a song file is also connected.**



**Note:**

Copy-protected files, such as PianoSoft and PianoSoft-Plus songs, cannot be copied to the [FromToPC] folder.

**Note:**

Do not copy the files other than Disklavier song files.

**Note:**

Do not access the [FromToPC] folder while Disklavier control unit is engaged in another operation (such as file copying or deleting).

**Note:**

It is necessary to configure the Disklavier control unit properly for network communications by enabling it to get a DHCP IP address automatically (recommended) or by assigning an appropriate address manually. The procedure is the same as the one used for setting up the Disklavier control unit for Internet communications. Please follow the instructions in Chapter 5 “Internet Direct Connection (IDC) – Setting the Disklavier Control Unit for the Internet Connection” on page 41.

**Note:**

Use an STP (shielded twisted pair) cable for connection. For details, see Chapter 5 “Internet Direct Connection (IDC) – Connecting the Disklavier to the Internet” on page 35.

**Note:**

For information about configuring a personal computer for network communications, please refer to the documentation that came with the computer.



## Media Management

## ■ For Windows

**2** On the computer screen, click [Start] and then select [My Network Places].

The [My Network Places] window appears. Confirm that the [Dkv\*\*\*\*\*] icon is shown in the [My Network Places] window.

**3** Double-click the [Dkv\*\*\*\*\*] icon.

The [Dkv\*\*\*\*\*] folder opens. Confirm that the [FromToPC] icon is shown in the [Dkv\*\*\*\*\*] folder.

**4** Double-click the [FromToPC] icon.

The [FromToPC] folder opens.

**5** Copy the desired song files to the [FromToPC] folder.**6** Refresh the contents in the folder.
**■ For Windows: In case that you cannot find the [Dkv\*\*\*\*\*] icon**

1. Press [SETUP] on the remote control.
2. Select "Network" in the setup menu screen.
3. Select "Information" to display the information of network settings.
4. Press [ ▼ ] several times to display "NAME=DKV\*\*\*\*\*" and memorize that name.
5. Open the [My Network Places] on the computer, and then click the [Search] icon on the top of the window.
6. Enter the name confirmed in step 4 in the [Computer name] box, and then click [Search] to start searching.
7. Open [Dkv\*\*\*\*\*] and confirm that the [FromToPC] folder is shown under that.
8. Copy the desired song files to the [FromToPC] folder.

**Note:**

[Dkv\*\*\*\*\*] differs depending on each Disklavier control unit.

**Note:**

The folder or icon name differs depending on the version of your operating system.



See Chapter 11 "Media Management – Refreshing the Contents in [FromToPC]" on page 105.

## ■ For Mac OS X 10.3 or 10.4

- 2 Click the [Finder] icon in the dock, and then click the [Network] icon in the left side of the window.

The [Network] window appears. Confirm that the [Dkv] icon is shown in the [Network] window.

- 3 Click the [Dkv] icon.

The [Dkv] folder opens. Confirm that the [Dkv\*\*\*\*\*] icon is shown in the [Dkv] folder.

- 4 Click the [Dkv\*\*\*\*\*] icon.

- 5 In the first dialog that appears, select [FromToPC] from the mini-menu and click [OK].

- 6 Click [OK] again in the next dialog that appears.

Connection process completes and the [FromToPC] icon appears in the left side of the window.

- 7 Click the [FromToPC] icon.

The [FromToPC] folder opens.

- 8 Copy the desired song files to the [FromToPC] folder.

- 9 Refresh the contents in the folder.

**Note:**

[Dkv\*\*\*\*\*] differs depending on each Disklavier control unit.

**Note:**

If the user ID and password are required during the process, enter any name for the ID and leave the space for the password blank.



See Chapter 11 “Media Management – Refreshing the Contents in [FromToPC]” on page 105.

## Media Management

## ■ For Mac OS X 10.5 or 10.6

- 2** Click the [Finder] icon in the dock, and then select [Go] and then [Network] from the menu bar.

The [Network] window appears. Confirm that the [Dkv\*\*\*\*\*] icon is shown in the [Network] window.

- 3** Click the [Dkv\*\*\*\*\*] icon.

The [Dkv\*\*\*\*\*] folder opens. Confirm that the [FromToPC] icon is shown in the [Dkv\*\*\*\*\*] folder.

- 4** Click the [FromToPC] icon.

The [FromToPC] folder opens.

- 5** Copy the desired song files to the [FromToPC] folder.

- 6** Refresh the contents in the folder.

**■ For Macintosh: In case that you cannot find the [Dkv\*\*\*\*\*] icon**

1. Press [SETUP] on the remote control.
2. Select “Network” in the setup menu screen.
3. Select “Information” to display the information of network settings.
4. Press [ ▼ ] several times to display “NAME=DKV\*\*\*\*\*” and memorize that name.
5. Select [Go] and then [Connect to Server] from the menu bar on the computer.
6. Enter the name confirmed in step 4 in the address field, and then click [Connect]. Use syntax “smb://” when entering the name (“smb://Dkv\*\*\*\*\*”).
7. Select [FromToPC] from the mini-menu in the first window appears and click [OK]. Click [OK] again in the next window that appears.
8. Copy the desired song files to the [FromToPC] folder on the left side of the finder window.

**Note:**

[Dkv\*\*\*\*\*] differs depending on each Disklavier control unit.

**Note:**

If the user ID and password are required during the process, enter any name for the ID and leave the space for the password blank.



See Chapter 11 “Media Management – Refreshing the Contents in [FromToPC]” on page 105.

## Refreshing the Contents in [FromToPC]

Select the [FromToPC] → [FUNC.] → "Refresh"

You must refresh the contents in the [FromToPC] folder after copying song files from a personal computer, in order to play them on the Disklavier.



To select a medium, see Chapter 3 "Basic Song Playback – Selecting Medium and Their Contents" on page 22.

- 1 Select "Refresh" in the media function menu, then press [ENTER].



The Refresh screen appears.

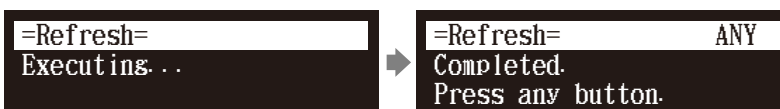


- 2 Press [ENTER].

"OK?" flashes in the first line of the screen.



- 3 Press [+ / YES] to refresh, [- / NO] to cancel.



After a while, the completion message appears.  
Press any button to return to the media selection screen.

## Formatting the Floppy Disk (Optional)

Select the floppy disk [FUNC.] "Format"

In the case of using the unformatted floppy disk on the floppy drive (optional) or deleting the entire contents on the floppy disk, format the floppy disk.

**1** Connect the floppy drive (optional) to the USB port on the control unit.

**2** Insert a floppy disk to the floppy drive.

**3** Select "Format" in the media function menu, then press [ENTER].



The Format screen appears.



**4** Press [ENTER].

"OK?" flashes in the first line of the screen.



**5** Press [+ / YES] to format, [- / NO] to cancel.



After a while, the completion message appears.  
Press any button to return to the media selection screen.

### Important:

Formatting a floppy disk erases all data that stored in the disk, so make sure that the disk you are going to format does not contain the data you want to keep.



To select a medium, see Chapter 3 "Basic Song Playback – Selecting Medium and Their Contents" on page 22.

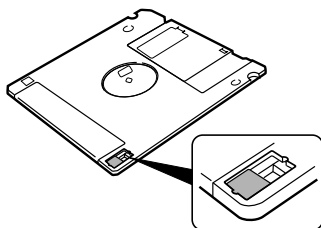
### Note:

If you are formatting a floppy disk, make sure that the floppy disk's erasure protection tab is set to "unprotected."

## ■ Floppy Disk Accidental Erasure Protection

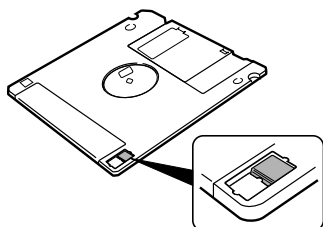
Floppy disks have an erasure protection tab located on the reverse side of the disk in the bottom right-hand corner. When formatting a disk, make sure that its erasure protection tab is set to “unprotected.”

Protected



When the tab window is open, formatting and recording are not possible.

Unprotected



When the tab window is closed, formatting and recording are possible.

## Making Backups of Songs

[SYSTEM] → “Backup”

You can make a backup copy of the songs and playlists. In order to protect your valuable music data, Yamaha strongly recommends that you backup your memory on regular basis.

If the floppy disk is inserted to the optional floppy disk drive, eject it before you start making backups.

**1** Connect an external USB medium to the USB port on the control unit.

**2** Press [SYSTEM] on the remote control.

The system menu screen appears.



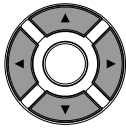
**Note:**

Be sure to use the USB medium described in Chapter 2 “Getting Started – Compatible Media Format for the Removable Media” on page 19.

**Note:**

Make sure that the USB medium has enough space to save the backup data.

- 3** Select “Backup” with the cursor buttons ([◀][▶][▲][▼]), then press [ENTER].



```
=SYSTEM MENU= (1/2) →
*Clock Adj. *TimeZone
*Backup      *Restore
```

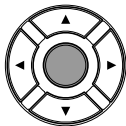
The Backup screen appears.



```
=Backup= ENT
Make a backup copy to
an external USB medium.
```

- 4** Press [ENTER].

“OK?” flashes in the first line of the screen.



```
=Backup= OK? YES/NO
Backup songs data?
```

- 5** Press [+ / YES] to make a backup, [- / NO] to cancel.



```
=Backup=
Executing...
DON'T REMOVE USB MEDIUM!
```



```
=Backup= ANY
Completed.
Press any button.
```

After a while, the completion message appears.  
Press any button to return to the system menu screen.

- 6** Press [SYSTEM] to exit from the system menu.



## Restoring the Backups

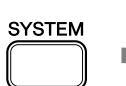
[SYSTEM] → “Restore”

You can restore the current condition of the internal memory to the previous condition that you made a backup copy.

- 1** Connect an external USB medium in which you made backup last time to the USB port on the control unit.

- 2** Press [SYSTEM] on the remote control.

The system menu screen appears.



```
=SYSTEM MENU= (1/2) →
*Clock Adj. *TimeZone
*Backup      *Restore
```



To make a backup, see Chapter 11 “Media Management – Making Backups of Songs” on page 107.

- 3** Select “Restore” with the cursor buttons ([ ◀ ] [ ▶ ] [ ▲ ] [ ▼ ]), then press [ENTER].



The Restore screen appears.



- 4** Press [ENTER].

“OK?” flashes in the first line of the screen.



- 5** Press [+ / YES] to restore, [- / NO] to cancel.



After a while, the completion message appears.  
Press any button to return to the system menu screen.

- 6** Press [SYSTEM] to exit from the system menu.

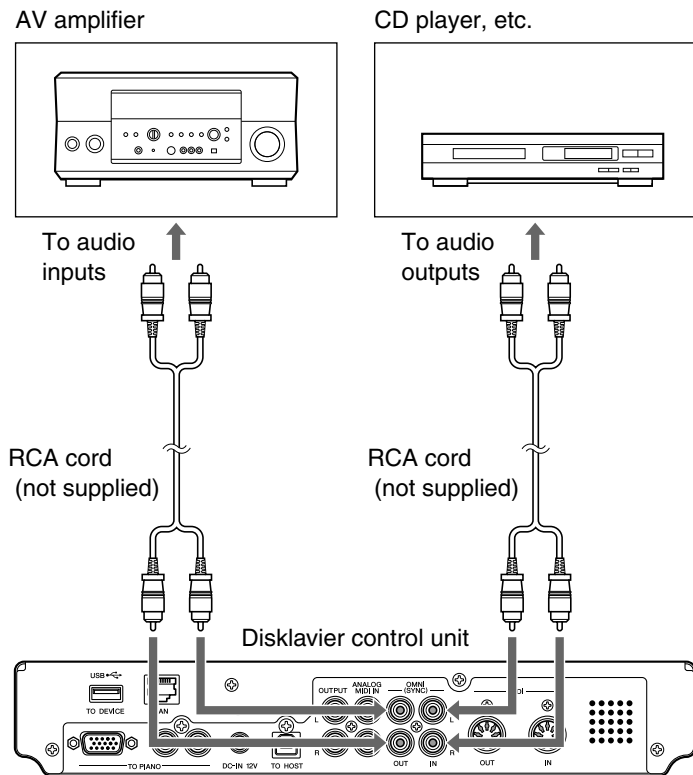




# Enhancing the Disklavier by Hooking Up Other Devices

## Hooking Up Audio Equipment

If you connect the Disklavier control unit to an audio system, you can hear the sound played/played back on the Disklavier from the connected audio system, and the sound played back on the connected audio system from the Disklavier.

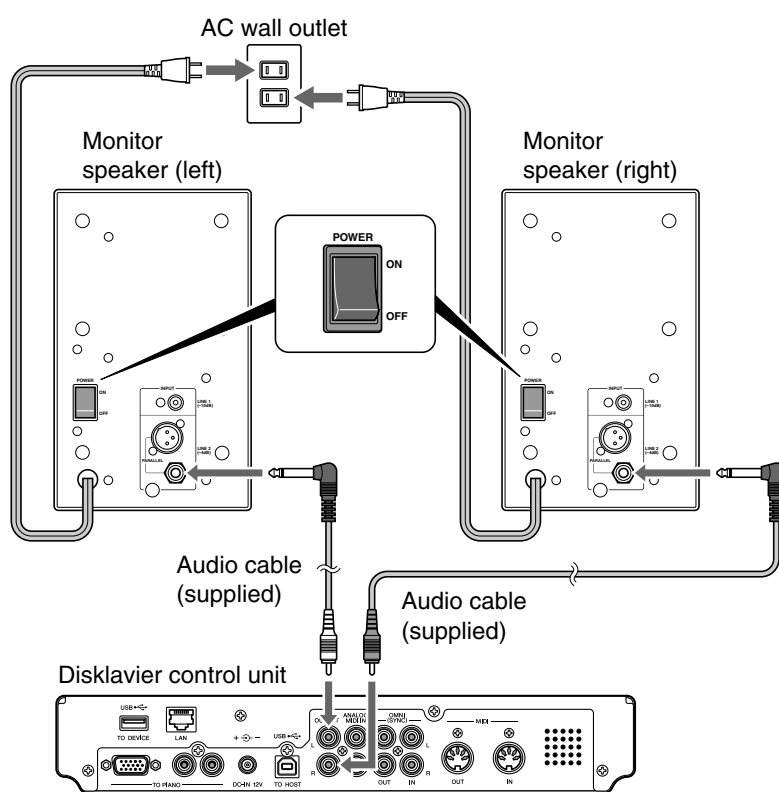


## Connecting Monitor Speakers

By connecting monitor speakers, you can listen to the internal XG tone generator voices or audio from the external audio equipment connected to the OMNI (SYNC) IN jacks from monitor speakers. Connection methods vary depending on whether your piano is equipped with the Silent Piano™ function or not.

### ■ Connecting Optional Monitor Speakers Directly to the Disklavier Control Unit

If your piano is not equipped with the Silent Piano™ function, connect monitor speakers following the procedures below.



- 1** Connect the INPUT LINE2 jacks on the rear of the monitor speakers and the OUTPUT jacks on the rear panel of the Disklavier control unit with the supplied audio cables (pin plug – phone plug).
- 2** Connect the power cables of the monitor speakers to the AC wall outlet.
- 3** Turn on the POWER switches of the monitor speakers.

The monitor speakers are turned on.

## Enhancing the Disklavier by Hooking Up Other Devices

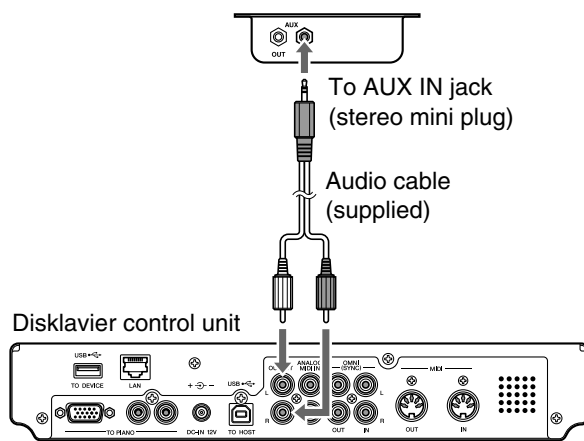
### ■ In Case that You are Using Monitor Speakers for Your Piano

If your piano is equipped with the Silent Piano™ function, connect monitor speakers following the procedures below.

If you have already connected monitor speakers to your piano, connect the AUX IN jacks of your piano to the OUTPUT jacks of the rear panel of the Disklavier control unit.

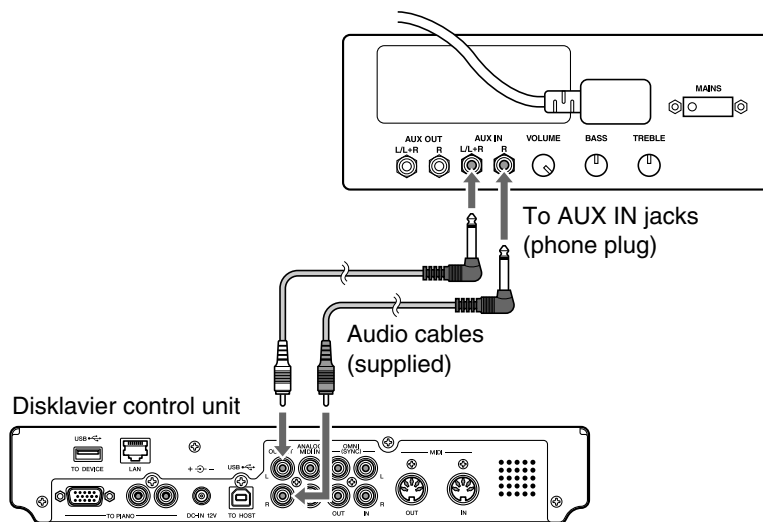
#### For models equipped with the control box

Connect your piano and the Disklavier control unit using the supplied audio cable (pin plugs – stereo mini plug).



#### For models equipped with the amplifier

Connect your piano and the Disklavier control unit using the supplied audio cables (pin plug – phone plug).



If you cannot find the AUX IN jacks on your piano, connect optional monitor speakers following the procedures in “Connecting Optional Monitor Speakers Directly to the Disklavier Control Unit” on previous page.

#### Note:

The shape of units or the location of the AUX IN jacks varies depending on the piano model.

## Setting the Disklavier Control Unit for Audio Data Reception/Transmission

[SETUP] "Audio/O"

You can select the kind of the incoming/going out audio signals. The following options should be set up in advance.

### OMNI IN

Selects the appropriate option to match the incoming data input to the OMNI (SYNC) IN jacks.

#### Auto Detect:

Select this when you make the Disklavier control unit detect the input signal automatically.

**Audio:** Select this when you play back an audio software on the connected CD player, etc. and reproduce the sound from optional monitor speakers.

**OFF:** Select this when you cancel the data reception from the OMNI (SYNC) IN jacks.

### OMNI IN Vol

Adjust the volume of the incoming audio signals to the OMNI (SYNC) IN jacks. The volume can be set in a range of 000 to 127.

### OMNI OUT

Selects the desired data to be output from the OMNI (SYNC) OUT jacks.

**Output:** Select this when you output the same audio signals as the ones for the OUTPUT jacks.

**SYNC:** Select this when you output the SMPTE signal used for video synchronization playback.

**OFF:** Select this when you cancel the data transmission from the OMNI (SYNC) OUT jacks.

### OMNI OUT Vol

Adjust the volume of the outgoing audio signals to the OMNI (SYNC) OUT jacks. The volume can be set in a range of 000 to 127, or to "M-Volume."

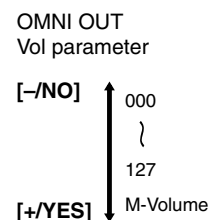
When you set to "M-Volume", the OMNI OUT volume works with the main volume.

### ANALOG MIDI IN Vol

Adjust the volume of the incoming audio signals to the ANALOG MIDI IN jacks. The volume can be set in a range of 000 to 127.

#### Note:

"M-Volume" is the next increment on the OMNI OUT Vol setting above 127.



## Enhancing the Disklavier by Hooking Up Other Devices

### A-MIDI IN Offset

For some display devices, the video images may be displayed a little bit later than the piano playing when playing back the video synchronized software that contains the analog MIDI signal. To eliminate this delay, you can adjust the offset time that leads the actual playback of the piano. A delay is applied to the incoming analog MIDI signal. The offset time can be set in a range of  $-500$  ms to  $0$  ms. Decrease this value to delay the piano playing, and increase to advance the piano playing.

### SYNC IN Offset

Adjusts the length of the offset time that leads the actual playback of entire recording. The offset time can be set in a range of  $-500$ ms to  $+500$ ms. Decrease this value to delay the piano playing, and increase to advance the piano playing.

### SYNC OUT Level

Adjusts the output level of the SMPTE signal. For normal use, the adjustment of this option is not required. If noises (synchronized signal) are output from the OUTPUT jacks during video synchronized playback, turn down the level and re-record.

### OUTPUT Offset

For some speakers or digital amplifiers, the audio from the Disklavier may be output a little bit later than the acoustic piano playing. To eliminate this delay, you can adjust the offset time for the sound output. This setting is applied to the outgoing audio signal from the OUTPUT jacks and OMNI (SYNC) OUT jacks. Decrease this value to advance the sound output. The offset time can be set in a range of  $-100$  ms to  $0$  ms. Decrease this value to delay the piano playing, and increase to advance the piano playing.

## 1 Press [SETUP] on the remote control.

The setup menu screen appears.



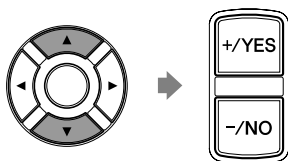
## 2 Select “AudioI/O” with the cursor buttons ([ ◀ ] [ ▶ ] [ ▲ ] [ ▼ ]), then press [ENTER].



The audio I/O setting screen appears.



- 3** Select a desired option with the cursor buttons ([ ▲ ] [ ▼ ]), then press [+ / YES] and [- / NO] to change setting.



- 4** Press [ENTER] to complete the operation.



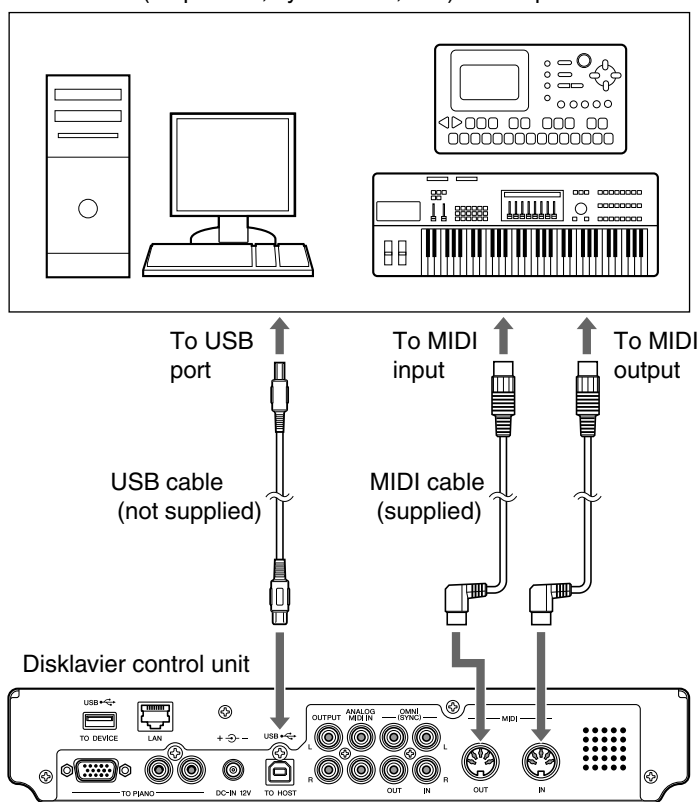
- 5** Press [SETUP] to exit from the setup menu.



## Hooking Up MIDI Devices

MIDI (an acronym for Musical Instrument Digital Interface) allows electronic device (synthesizers, etc.) to interact and work in synchronization with other MIDI compatible device. The Disklavier enables you to enjoy a variety of MIDI features by connecting a MIDI device or computer to the Disklavier control unit.

MIDI device (sequencer, synthesizer, etc.) or computer



**Note:**

When you use the USB connection, it is required to install the USB driver to the connected device. In such a case, visit the following website and download the driver. <http://download.yamaha.com/>

**Note:**

Be sure to use the commercially available MIDI cable with the L-shaped connector on the control unit end.

**Note:**

If your piano is connected to the Disklavier control unit with the MIDI cables, you cannot use the MIDI IN and MIDI OUT terminals for connection with other MIDI devices. Use the USB port for connection.

## Setting the Disklavier Control Unit for MIDI Data Reception

[SETUP] → "MIDI"

The Disklavier can play back the MIDI data being received from the connected MIDI device as well as the software loaded or stored in the Disklavier control unit itself. The following options should be set up in advance.

### MIDI IN Port

Selects the terminal/port used for the data reception.

- MIDI:** Select this when the MIDI device is connected to the MIDI IN terminal.
- USB:** Select this when the MIDI device is connected to the USB port.

### Piano Rcv Ch

The MIDI data consists of multi channels that are respectively assigned to a certain instrument's part. This option assigns the desired channel(s) to the piano part(s) that is (are) played back on the Disklavier's keyboard.

**01 thru 16:** Select the desired channel to which you assign the piano part.

**1+2:** Select this when the "01" and "02" channels are assigned to the piano parts.

**Prg:** Select the smallest number channel assigned to the piano group voice (see page 142) to be played on the Disklavier.

**Prg(All):** Select all channels assigned to the piano group voice (see page 142) to be played on the Disklavier.

### MIDI IN Delay

When the Disklavier control unit receives two kinds of data (strong and weak note) at the same time, the weak note sounds a little bit later than the strong one due to the characteristics of the mechanism of the Disklavier control unit. To eliminate this delay in the sound reproduction and the notes are sounded in accurate timing at 500 millisecond after the data reception, usually a delay is applied to the incoming MIDI data.

**ON:** Select this when you apply this delay to the incoming MIDI data.

**OFF:** Select this when you do not apply this delay.

#### Note:

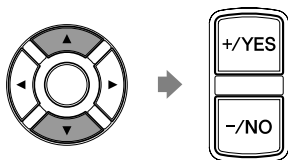
If you set the connection type setting to "Add", the MIDI IN Port setting is fixed to "USB." Note that you cannot use the MIDI IN terminal as MIDI IN Port.

**1** Press [SETUP] on the remote control.

The setup menu screen appears.

**2** Select "MIDI" with the cursor buttons ([◀][▶][▲][▼]), then press [ENTER].

The MIDI setting screen appears.

**3** Select a desired option with the cursor buttons ([▲][▼]), then press [+ / YES] and [- / NO] to change setting.**4** Press [ENTER] to complete the operation.**5** Press [SETUP] to exit from the setup menu.



## Setting the Disklavier Control Unit for MIDI Data Transmission

[SETUP] "MIDI"

The Disklavier control unit can transmit the information of piano playing/ensemble part playback on the Disklavier as the MIDI data to the connected MIDI device to reproduce the sound with its sound generator, etc. or to record the MIDI data. The following options should be set up in advance.

### MIDI OUT Port

Selects the terminal/port used for the data transmission.

**MIDI:** Select this when the MIDI device is connected to the MIDI OUT terminal.

**USB:** Select this when the MIDI device is connected to the USB port.

### MIDI OUT

Selects one of the following parts to be transmitted to the connected MIDI device.

**ESBL Out:** Select this when you transmit the ensemble part played back on the Disklavier.

**KBD Out:** Select this when you transmit the piano part played on the Disklavier.

#### Note:

If you set the connection type setting to "Add", the MIDI OUT Port setting is fixed to "USB." Note that you cannot use the MIDI OUT terminal as MIDI OUT Port.

#### Note:

If you connected the playback model and set the connection type setting to "Replace", the MIDI OUT setting is fixed to "ESBL Out."

## 1 Press [SETUP] on the remote control.

The setup menu screen appears.



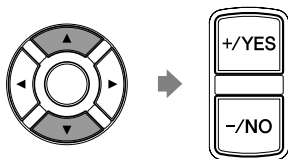
## 2 Select "MIDI" with the cursor buttons ([◀][▶][▲][▼]), then press [ENTER].



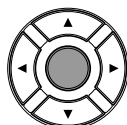
The MIDI setting screen appears.



- 3** Select a desired option with the cursor buttons ([ ▲ ] [ ▼ ]), then press [+ / YES] and [- / NO] to change setting.



- 4** Press [ENTER] to complete the operation.



- 5** Press [SETUP] to exit from the setup menu.



## Setting the Disklavier Control Unit for Keyboard Playing Data Transmission

[SETUP] → "MIDI" →

Besides the MIDI OUT options, more detailed setups for the keyboard playing data transmission are available. The following options should be set up in advance.

### KBD OUT CH

Assigns the piano part to the desired channels.

**01 thru 16:** Select the desired channel to which you assign the piano part.

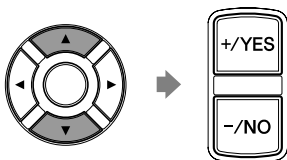
## Enhancing the Disklavier by Hooking Up Other Devices

**1** Press [SETUP] on the remote control.

The setup menu screen appears.

**2** Select “MIDI” with the cursor buttons ([ ◀ ] [ ▶ ] [ ▲ ] [ ▼ ]), then press [ENTER].

The MIDI setting screen appears.

**3** Select a desired option with the cursor buttons ([ ▲ ] [ ▼ ]), then press [+ / YES] and [- / NO] to change setting.**4** Press [ENTER] to complete the operation.**5** Press [SETUP] to exit from the setup menu.

## Tuning the Tone Generator (TG Master Tune)

[SETUP] "M-Tune"

The internal XG tone generator has already been tuned to match the acoustic piano (A3=440 Hz). However, you can re-tune the internal XG tone generator in accordance with the pitch of the acoustic piano by following the procedure below.

### 1 Press [SETUP] on the remote control.

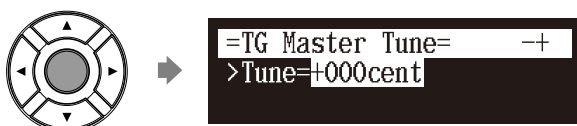
The setup menu screen appears.



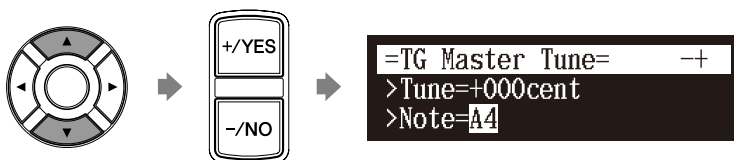
### 2 Select "M-Tune" with the cursor buttons ([◀][▶][▲][▼]), then press [ENTER].



The TG Master Tune setting screen appears.



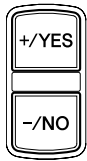
If you connected the playback model, the piano tone will sound automatically on the XG tone generator. You can change the key of this tone. Select "Note" with the cursor buttons ([▲][▼]), then press [+ / YES] and [- / NO] to change the key.



The following key settings are available: A-1, A0, A1, A2, A3, A4, A5, A6.

## Other Settings

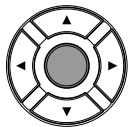
- 3** Playing the keyboard, press [+ / YES] and [- / NO] to tune the pitch of the internal XG tone generator.



The same note will sound simultaneously on the XG tone generator's digital piano and on the acoustic piano as soon as you play the keyboard.

The pitch of the internal XG tone generator can be adjusted in a range of -50 cent to +50 cent.

- 4** Press [ENTER] to complete the operation.



- 5** Press [SETUP] to exit from the setup menu.

**Note:**

To reset to the default factory pitch settings, see Chapter 13 “Other Settings – Resetting the Disklavier Control Unit” on page 130.

## Assigning Frequently-used Functions to the Number Keypad on the Remote Control

[SETUP] **“Shortcut”**

You can assign the number keypad of the remote control ([1] thru [9] and [0]) a series of procedures for often used functions.

### ■ Assigning Functions

- 1** Press [SETUP] on the remote control.

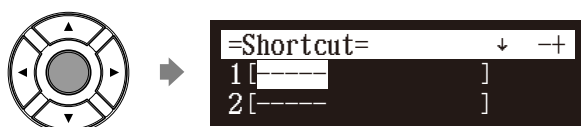
The setup menu screen appears.



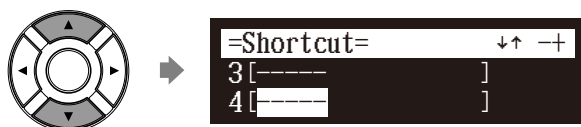
- 2** Select “Shortcut” with the cursor buttons ([ ◀ ] [ ▶ ] [ ▲ ] [ ▼ ]), then press [ENTER].



The shortcut setting screen appears.



- 3** Press [ ▲ ] and [ ▼ ] to select the desired number.



- 4** Press [+ / YES] and [- / NO] to select the desired function.



The following functions are available:

| Option | Description   |
|--------|---|
| PLAY   | Starts playback of songs in the selected album or playlist.                             |
| RPT    | Starts repeat playback of a song or songs in the selected album or playlist.            |
| RND    | Starts playback of songs in the selected album or playlist at random.                   |
| RADIO  | Starts playback of the selected DisklavierRadio channel.                                |
| BLNC   | Adjusts the volume balance among the different sound sources (tone generator or audio). |
| POWER  | Turns on and off the Disklavier.  |

When functions other than “POWER” are selected, the detailed setting parameter appears.

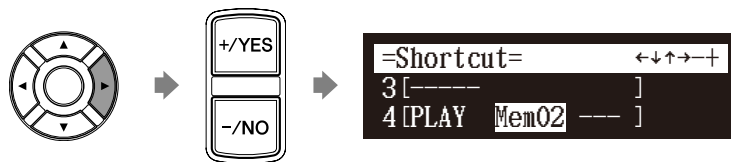
**Note:**

“RADIO” is available only on models of which the control unit is replaced with the Disklavier control unit.

## Other Settings

- 5** Press [▶] to move the cursor to the detailed setting parameter, then press [+ / YES] and [- / NO] to select the desired setting.

You can set two sets of parameter depending on the function you have selected.



#### When “PLAY” is selected:

| Option 1      | Option 2  | Description  |
|---------------|-----------|--|
| Mem01 - Mem99 | ---       | Starts playback from the first song in the album selected for option 1.                    |
|               | 001 - 999 | Starts playback from the song selected for option 2 in the album selected for option 1.    |
| Lst01 - Lst99 | ---       | Starts playback from the first song in the playlist selected for option 1.                 |
|               | 001 - 999 | Starts playback from the song selected for option 2 in the playlist selected for option 1. |

#### When “RPT” is selected:

| Option 1      | Option 2  | Description   |
|---------------|-----------|---|
| Mem01 - Mem99 | ---       | Starts repeat playback of all songs in the album selected for option 1 from the first song.     |
|               | 001 - 999 | Starts repeat playback of the song selected for option 2 in the album selected for option 1.    |
| Lst01 - Lst99 | ---       | Starts repeat playback of all songs in the playlist selected for option 1 from the first song.  |
|               | 001 - 999 | Starts repeat playback of the song selected for option 2 in the playlist selected for option 1. |

#### When “RND” is selected:

| Option        | Description  |
|---------------|--|
| Mem01 - Mem99 | Starts playback of songs in the selected album at random.    |
| Lst01 - Lst99 | Starts playback of songs in the selected playlist at random. |

When “RADIO” is selected:

| Option         | Description  |
|----------------|--|
| CH01 -<br>CH99 | Starts playback of the selected DisklavierRadio channel. |

When “BLNC” is selected:

| Option 1 | Option 2 | Description                              |
|----------|----------|--|
| TG       | UP       | Raises the volume of the tone generator. |
|          | DOWN     | Lowers the volume of the tone generator. |
| AUDIO    | UP       | Raises the volume of the audio.          |
|          | DOWN     | Lowers the volume of the audio.          |

When “POWER” is selected:

Details settings are not required.

**6** Press [ENTER] to complete the operation.



**7** Press [SETUP] to exit from the setup menu.



## ■ Using the Shortcut

Holding the green button on the remote control, press the corresponding number button on the number keypad to execute the assigned function.





## Setting the Passcode to Prevent Unauthorized Access

[SETUP] "Passcode"

You can enter the 4-digit passcode to prevent unauthorized access from the commercially available external remote controller, or you can also set the MAC address of the external remote controller to allow it to access your Disklavier without entering the passcode.

### ■ Setting the Passcode

#### 1 Press [SETUP] on the remote control.

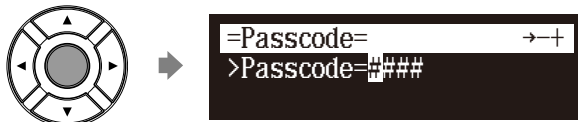
The setup menu screen appears.



#### 2 Select "Passcode" with the cursor buttons ([ < ] [ > ] [ ▲ ] [ ▼ ]), then press [ENTER].



The passcode setting screen appears.



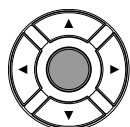
#### 3 Enter the 4-digit code with the number keypad.



You can move the cursor left and right with the cursor buttons ([ < ] [ > ]).

If you want to set the MAC address continuously, see "Setting the MAC Address" and follow the instruction.

#### 4 Press [ENTER] to complete the operation.



#### 5 Press [SETUP] to exit from the setup menu.



#### Note:

These settings are not required for the use of the remote control of this unit. In case of using an external remote controller, refer to the user's guide for that remote controller.

#### Note:

If changes are inappropriately made for these settings, the external remote controller may not function properly. In such cases, enter "####" to reset the passcode setting.

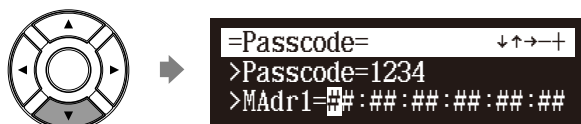
#### Note:

You can also use [+ / YES] and [- / NO] on the remote control, or the dial on the front panel to enter the code.

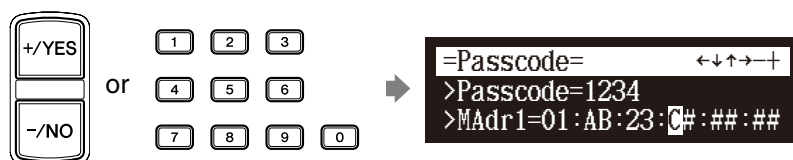
## ■ Setting the MAC Address

If you feel inconvenient to enter the passcode each time you access from the external remote controller, you can set the MAC address of the external remote controller. This will allow the external remote controller with the registered MAC address to access your Disklavier without entering the passcode.

- 1 With the passcode properly set, press [▼] to select "MAdr1."



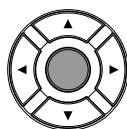
- 2 Enter the address with [+ / YES] and [- / NO], or the number keypad.



You can move the cursor left and right with the cursor buttons ([◀] [▶]).

You can set up to three addresses.

- 3 Press [ENTER] to complete the operation.



- 4 Press [SETUP] to exit from the setup menu.



**Note:**

You can also use the dial on the front panel to enter the address.

## Adjusting the Brightness of the Display

[SETUP] → "Display"

You can adjust the brightness of the display. You can also set the display to dim after the elapse of a certain time if there is no operation.

### 1 Press [SYSTEM] on the remote control.

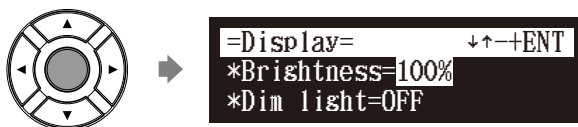
The system menu screen appears.



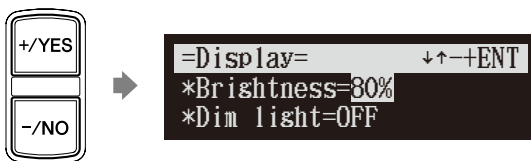
### 2 Select "Display" with the cursor buttons ([◀][▶][▲][▼]), then press [ENTER].



The display setting screen appears.

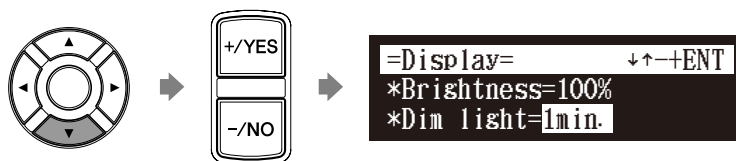


### 3 Press [+ / YES] and [- / NO] to change the brightness.



The following brightness settings are available: 40%, 60%, 80%, 100%.

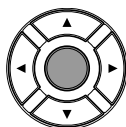
- 4** To set the time for the display to dim, press [▼] to move the cursor to the dim light parameter, then press [+ / YES] and [- / NO].



The following time settings are available: OFF, 1min, 2min, 3min, 5min, 10min, 15min, 30min, 45min, 60min.

If there is no operation for the time set above, the display dims to half the brightness of its original setting.

- 5** Press [ENTER] to complete the operation.



- 6** Press [SYSTEM] to exit from the system menu.

**Note:**

The brightness of the display will return to its original setting when you press any buttons, insert media, or eject media.

## Switching the Languages for the Screen

[SYSTEM] → "Language" →

- 1** Press [SYSTEM] on the remote control.

The system menu screen appears.



- 2** Select "Language" with the cursor buttons ([◀] [▶] [▲] [▼]), then press [ENTER].



The language setting screen appears.



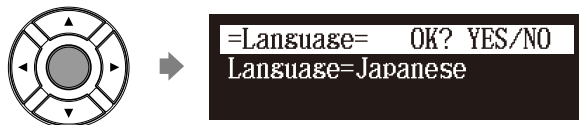
## Other Settings

- 3** Press [+ / YES] and [- / NO] to select the language.



- 4** Press [ENTER].

“OK?” flashes in the first line of the screen.



- 5** Press [+ / YES] to set the language, and return to the system menu screen.

- 6** Press [SYSTEM] to exit from the system menu.



## Resetting the Disklavier Control Unit

[SETUP] → “Reset”

If you want to return your Disklavier control unit to its initial factory, follow the procedure below.

- 1** Press [SETUP] on the remote control.

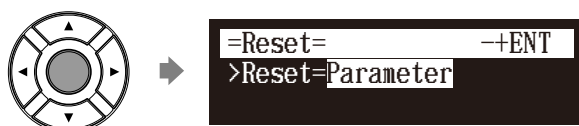
The setup menu screen appears.



- 2** Select “Reset” with the cursor buttons ([ < ] [ > ] [ ▲ ] [ ▼ ]), then press [ENTER].



The reset screen appears.



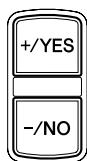
### Important:

If you reset your Disklavier control unit, depends upon the option what you select, you may lose all parameters or all data in the internal memory, or both of these. For normal use, you do not have to reset. Necessarily case you have to reset your Disklavier control unit, Yamaha strongly recommends that you backup your songs in the internal memory. However, you cannot backup your various parameter settings.



To make a backup copy of the songs which are in the internal memory, see Chapter 11 “Media Management – Making Backups of Songs” on page 107.

- 3** Press [+ / YES] and [- / NO] to select the option that you want to reset.



The following options are available:

| Option        | Description   |
|---------------|---|
| Parameter     | Reset all parameters, excluding the clock setting and the Internet setting. |
| Memory        | Reset the internal memory.  |
| Factory Init. | Reset the Disklavier control unit to its initial factory setting.           |
| DeleteCookies | Delete the contents of all saved cookies.                                   |

**Note:**

Selecting "Factory Init." will also reset the piano type settings.

- 4** Press [ENTER].

"OK?" flashes in the first line of the screen.



```
=Reset=      OK? YES/NO
>Reset=Factory Init.
```

- 5** Press [+ / YES] to reset, [- / NO] to cancel.



After a while, the completion message appears.  
Press any button to return to the setup menu screen.

- 6** Press [SYSTEM] to exit from the system menu.



## Updating the Disklavier Control Unit

Shut down the Disklavier control unit → [PLAY/PAUSE] and [ON/OFF]

You can update the Disklavier control unit firmware using update program (saved on the CD-ROM or USB flash memory, or downloaded via Internet).

You can download the update program from the following website:  
<http://download.yamaha.com/>

### 1 Make sure that Disklavier control unit is shut down.

### 2 Holding [PLAY/PAUSE] on the front panel, press [ON/OFF].



The current version information of each module appears one after the other.

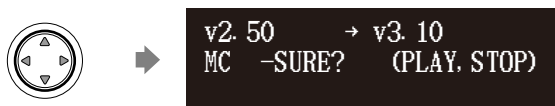
### 3 Make sure that the update program is prepared, then press [ENTER] on the front panel.

The starting screen appears.



### 4 Press [ENTER] on the front panel again.

After a while, the update confirmation message of each module appears.



#### Note:

For this operation you have to insert the CD-ROM or USB flash memory in which the update program is saved or download update program via Internet, and shut down the Disklavier control unit.

#### Note:

Depending on the version or specification of the Disklavier, the actual indications for the version and module names may differ from ones depicted here.

## 5 Press [PLAY/PAUSE] to start the update.

The update process of the first module takes approximately 3 minutes.

```
MC v2.50 → v3.10
DO NOT REMOVE DISK!
```

When the update of the first module completes, the following confirmation message appears.

Confirmation message of the second module

```
v2.50 → v3.10
CTRL-SURE? (PLAY, STOP)
```

Press [PLAY/PAUSE] to start the update of the second module. The update process of the second module takes approximately 3 minutes.

A total of three modules needs to be updated. Repeat this step to complete the update.

Confirmation message of the third module

```
v2.50 → v3.10
APE -SURE? (PLAY, STOP)
```

The update process of the third module takes approximately 2 minutes.

The closing screen appears when the update for all modules completes.

```
COMPLETE
Turn OFF, TURN ON again!
```

## 6 Restart the Disklavier control unit.

### Attention:

DO NOT turn off this unit during update.

### Attention:

Be sure to update all the modules.



# Troubleshooting

If you are having difficulty operating the Disklavier control unit, see if any of the symptoms listed below apply to your problem and follow the recommended remedy.

## Power

| Symptom                          | Remedy  |
|----------------------------------|---|
| The Disklavier does not turn on. | Make sure that the AC adaptor is securely connected to a suitable AC wall outlet.<br>If the Disklavier control unit still cannot be turned on, disconnect it from the AC wall outlet, and consult your Disklavier dealer. |

## Control Unit

| Symptom   | Remedy   |
|---|--|
| The control unit does not appear to work correctly. | Turn off the control unit, wait 5 seconds, then turn it back on. If the problem continues, consult your Disklavier dealer.           |
| The control unit becomes hot.                       | Although the chassis of the control unit may become hot while it is turned on (also in the standby mode), this is not a malfunction. |

## Remote Control

| Symptom  | Remedy   |
|--|--|
| You cannot control the Disklavier control unit using the remote control. | Make sure that you are pointing the remote control at the remote control sensor on the front panel.<br>Make sure that you are within the remote control's specified operating range (approx. 5 m).<br>Make sure that the remote control's batteries have been installed correctly.<br>Check the condition of the remote control's batteries. |

## Playback

| Symptom  | Remedy  |
|--|---|
| None of the playback functions can be used.  | <p>Insert a medium that contains songs into the Disklavier control unit.</p> <p>If you have connected the Disklavier control unit, replacing with the existing control unit, make sure that the D-SUB cable from your piano is firmly connected to the Disklavier control unit via the supplied conversion cable.</p> <p>If you have connected the Disklavier control unit and the existing control unit with the MIDI cables, make sure that they are connected with two MIDI cables for input and output.</p> <p>Your piano is equipped with the thermostat. When the built-in playback device is overheated due to prolonged hard performance, song playback will be stopped automatically. In such case, turn off your piano and leave it unattended for a while to cool down the device.</p> |
| The Disklavier control unit does not read a song file.   | <p>The maximum number of the readable files in an album is 999.</p> <p>Make sure that the name of the SMF song has an extension as “.MID” or “.mid” and the E-SEQ song has “.FIL” or “.fil.”</p> <p>Make sure that you have selected the album including the song you want to play back.</p>  |
| Songs are played back at the wrong tempo or in the wrong key.  | Reset the tempo or transposition changes. Once the tempo or transposition have been changed, they will affect playback of all songs on an album, until another medium or album is selected, the recording standby mode is engaged, the Disklavier control unit is turned off, or they are reset.  |
| Songs are not played back in the normal song order.  | Make sure that the random repeat mode is off.   |
| The playback order differs from the order on another device.   | The playback order depends on the recording software or other factors. Naming the file starting from numbers such as 01, 02, etc. may solve the problem.  |
| When selecting a song using the remote control's number keypad, but the last song on the album is selected.  | If a song number higher than the last song number on the album is specified, the last song will be selected.  |
| When specifying a search time using the remote control's number keypad, but the end of the song is selected. | If a time value higher than the total length of the song is specified, the end of the song will be selected.  |
| Some notes drop out during playback.   | When a piano song is played back at a low volume, complex note trills and faint pianissimo passages sometimes drop out. In such case, increase the volume level of the Disklavier control unit.   |
| PianoSmart™ playback cannot be performed.  | Make sure that an appropriate SmartPianoSoft song, which is paired with the song on commercial CDs, is selected.  |
| The pedals do not operate during playback.   | <p>Make sure that the pedal part is not canceled.</p> <p>Make sure that your piano is not in the Silent Piano™ function mode.</p>   |

## Tone Generator

| Symptom   | Remedy  |
|---|---|
| The ensemble parts cannot be heard during ensemble song playback.     | Make sure that the TG balance is set to an appropriate level and readjust it. |
| The pitch of your piano and the internal tone generator do not match. | Use the TG Master Tune function to tune the internal tone generator.          |

## Troubleshooting

### Recording

| Symptom               | Remedy  |
|-----------------------|---|
| You cannot re-record. | Re-recording is not possible on protected songs such as PianoSoft and PianoSoft-Plus songs. |

### Media

| Symptom   | Remedy   |
|---|--|
| The Disklavier control unit does not read a CD-R/RW disc. | The audio CD should be formatted in CD-DA, and the data CD in ISO 9660 Level1. The Disklavier control unit may not read a CD-R/RW disc other than this format. |

### Connection with External Devices

| Symptom   | Remedy  |
|---|---|
| The Disklavier control unit cannot send or receive MIDI data with other MIDI instruments.   | Make sure that the MIDI cables or USB cable are connected properly. |
| A MIDI loop was accidentally created when you connected a computer to the MIDI OUT terminal on the Disklavier control unit, so that song data is sent back and forth between the computer and the Disklavier. | Configure the setting for the MIDI OUT terminal to "KBD OUT."       |

### Video Synchronized Recording/Playback

| Symptom   | Remedy   |
|---|--|
| Synchronized songs are not played back.   | <p>Make sure that the audio channels of the DVD recorder are correctly connected to the Disklavier control unit.</p> <p>Make sure that the input and output of the DVD recorder are correctly connected to the Disklavier control unit.</p> <p>Make sure that the "OMNI IN" option on the Disklavier control unit is set to "AutoDetect."</p> <p>Make sure that the "OMNI OUT" option on the Disklavier control unit is set to "SYNC."</p> |
| Noises are heard during recording.  | <p>Turn down the volume of the TV connected to the DVD recorder.</p> <p>Disconnect the left side connector of the RCA cord from the OMNI OUT (L) jack on the Disklavier control unit. This will not affect the functionality of video synchronized recording.</p>  |
| Noises are heard during playback.   | The level of the synchronized signal (SMPTE) from the Disklavier control unit may be too high. Turn down the level with the "SYNC OUT Level" option and re-record.   |
| The piano playback is not synchronized with the video picture.                                  | The video picture may be delayed on the projection device. Adjust the offset time with the "SYNC IN Offset" to match the piano playing and the video picture.  |
| The beginning of the piano performance is dropped out when you play back the synchronized song. | It may take some time until the Disklavier control unit recognizes the synchronized signal and the piano begins to play back. Select the synchronized song in advance, and then start playback on the DVD recorder. Note that you should wait for a while before playing the piano after recording begins on the DVD recorder.   |

# Error Messages

While operating your Disklavier control unit, an error message may appear in the display. If an error message appears, refer to the table below for an explanation of the message.

## Media Selection / Playback

| Error Messages | Situation  | Remedy   |
|----------------|--|--|
| NO MEDIA!      | You selected the medium that has not been inserted.          | Insert the medium or select another medium.                        |
| DIFFERENT CD!  | Your CD is not paired with the selected SmartPianoSoft song. | Insert appropriate CD that is paired with the SmartPianoSoft song. |

## Voice Function

| Error Messages                         | Situation  | Remedy   |
|--|--|--|
| CANNOT USE THIS FUNCTION<br>PIANO TYPE | You tried to use the voice function on the playback model. | You cannot use the voice function if your piano is the playback model. |

## File Operation

| Error Messages                                  | Situation   | Remedy  |
|---|---|---|
| CANNOT EXECUTE.<br>NOT ENOUGH DISK SPACE        | You tried to copy a song to the medium that has no disk space.                                | Try another medium or delete songs on the media to make disk space. |
| CANNOT EXECUTE.<br>NO DESTINATION MEDIUM        | You selected the destination medium that has not been inserted when copying the album.        | Insert the destination medium and select it.                        |
| DISK WRITE PROTECTED!                           | You tried to copy songs or albums to the medium with the protection tab set to "protected".   | Set the protection tab of the medium to "unprotected".              |
| CANNOT EXECUTE.<br>PROTECTED FILE               | You tried to copy the protected song file to the removable medium such as a USB flash memory. | You cannot copy the protected file to the removable medium.         |
| Deleted all songs in this album                 | You tried to delete the album with sub folders on the external medium.                        |   |
| CANNOT EXECUTE TO CREATE<br>MORE THAN 99 ALBUMS | You tried to create a new album on the medium that already contains 99 albums.                | No more than 99 albums can be created on the medium.                |
| CANNOT EXECUTE TO CREATE<br>MORE THAN 999 SONGS | You tried to create a new song in the album that already contains 999 songs.                  | No more than 999 songs can be created in the album.                 |
| CANNOT EXECUTE.<br>SAME TITLE EXISTS            | You tried to rename an album as same as the album that already exists.                        | Enter the different title to an album.                              |
|   | You tried to rename a playlist as same as the playlist that already exists.                   | Enter the different title to a playlist.                            |

## Recording

| Error Messages                   | Situation  | Remedy  |
|----------------------------------|--|---|
| SELECT REC TRACK                 | You tried to start re-recording with no part selected. | Select the part to record before starting re-recording.       |
| CANNOT RECORD.<br>PLAYBACK MODEL | You tried to record a song on the playback model.      | You cannot record a song if your piano is the playback model. |

## Error Messages

## Timer Play

| Error Messages                             | Situation  | Remedy   |
|--|--|--|
| SAME TIME EVENT EXISTS!<br>CHANGE THE TIME | You tried to set two different programs with the same time for timer playback. | You cannot set two different program with the same time. |

## Internet Direct Connection

| Error Messages                         | Situation   | Remedy   |
|--|---|--|
| CANNOT USE THIS FUNCTION<br>PIANO TYPE | You tried to use the Internet Direct Connection on the piano connected to the Disklavier control unit with the MIDI cables. | Internet Direct Connection is available only on models of which the control unit has been replaced with the Disklavier control unit. |

## MIDI

| Error Messages                          | Situation  | Remedy   |
|---|--|--|
| CANNOT USE THE MIDI PORT<br>PIANO TYPE  | You tried to change the MIDI IN Port or MIDI OUT Port settings on the piano connected to the Disklavier control unit with the MIDI cables. | If your piano is connected to the Disklavier control unit with the MIDI cables, these settings are fixed to "USB" and you cannot change the settings.          |
| CANNOT USE THE KBDOUT<br>PLAYBACK MODEL | You tried to change the MIDI OUT setting on the playback model of which the control unit is replaced with the Disklavier control unit.     | If you replace the control unit of the playback model with the Disklavier control unit, this setting is fixed to "ESBL Out" and you cannot change the setting. |

This glossary provides basic definitions of terms used frequently in this manual.

### Continuous Pedal

See *“Incremental Pedal.”*

### Cookie

A computer data file that stores certain information for use when revisiting a website. In the case of the Disklavier, cookies are used to store ID and password for the IDC service.

### DHCP

This is a standard or protocol by which IP addresses and other low-level network configuration information can be dynamically and automatically assigned each time a connection is made to the Internet.

### DNS

A system that translates names of computers connected to a network to their corresponding IP addresses.

### Ensemble Song

A song which contains piano parts and accompanying instrumental voices. An ensemble song contains the same left- and right-hand parts as an L/R song, and in addition, up to 13 accompanying instrument tracks. These extra tracks are played by the internal XG tone generator. The accompanying tracks may be used for acoustic bass, drums, strings, vibes, etc.

### E-SEQ Song Format

A song file format developed by Yamaha for saving songs.

### Floppy Disk

The magnetic storage medium that the Disklavier uses to save songs. With the optional USB floppy drive, you can use the 3.5 inch 2DD and 2HD floppy disks commonly used for computers.

### Gateway

A system which links different networks or systems, and makes possible data transfer and conversion despite differing communications standards.

### General MIDI (GM)

An addition to the MIDI standard that simplifies the transfer of MIDI song files between instruments of different manufacturers. A MIDI song recorded using a GM compatible tone generator should play back correctly when used with any GM compatible tone generator. The standard specifies that a GM compatible tone generator must support 24-note polyphony, 16 parts, and 128 standard voices.

### Half Pedal

See *“Incremental Pedal.”*

### Incremental Pedal

Piano pedals are not always completely up or down and may be held somewhere in-between. Using incremental pedal data (also called continuous or half pedal data) the Disklavier precisely records the up and down movement of the piano pedals.

### Internet

A huge network made up of networks, the Internet allows high-speed data transfer among computers, mobile phones and other devices.

### IP Address

A string of numbers assigned to each computer connected to a network, and indicating the device's location on the network.

### LAN

Short for Local Area Network, this is a data-transfer network that connects a group of computers at a single location (such as an office or home) by means of a special cable.

### L/R Song

In a L/R song, the left-hand piano part is stored on track 1 (L) and the right-hand piano part is stored on track 2 (R). During playback you can cancel either part, and then play that part yourself. When recording an L/R song, you can record the two parts simultaneously or separately.

**MIDI**

An acronym for Musical Instrument Digital Interface. MIDI allows electronic musical instruments to communicate with each other.

**Modem**

A device which connects and allows data transfer between a conventional telephone line and a computer. It converts the digital signals from the computer to analog audio for sending over the phone line, and vice versa.

**Piano Parts**

Refer to the left- and right-hand piano parts of a song. The left-hand piano part is recorded onto track 1 and the right-hand piano part is recorded onto track 2.

**PianoSoft™**

The PianoSoft Disk Collection is a library of prerecorded song disks made by Yamaha specifically for use with the Disklavier.

**PianoSoft·Plus™**

PianoSoft·Plus disks contain Ensemble songs that can be played on the Disklavier.

**Polyphony**

The maximum number of voices (or sounds) that can be produced at a time from MIDI instruments.

**Provider**

A communications business that offers Internet connection services. In order to connect to the Internet, it is necessary to contract to a provider.

**Proxy**

A proxy server is a server that all computers on a local network have to go through before accessing information on the Internet. It intercepts all or designated requests to the real server to see if it can fulfill the requests itself. If not, it forwards the request to the real server. Proxy servers are used to improve performance and speed, and to filter requests, usually for security and to prevent unauthorized access to an internal network.

**Router**

A device for connecting multiple computer networks. For example, a router is necessary when connecting several computers in a house or office, to allow all of them access the Internet and share data. A router is usually connected between a modem and a computer, although some modems have a built-in router.

**Sequencer**

A sequencer can be used with the Disklavier to play back and record MIDI data.

**Server**

A hardware system or computer used as a central point for a network, providing access to files and services.

**SmartPianoSoft™**

Software made by Yamaha containing MIDI signals for playing back along with standard audio CDs.

**SMF**

Abbreviation for Standard MIDI File.

**SMF Song Format**

A song file format supported by MIDI sequencers and music software.

**Song**

Normally, a short piece of music with lyrics. However, for clarity in Disklavier manuals, the term is used to refer to any piece of music of any genre.

**Standard MIDI File**

A file of MIDI data that can be read and used by a number of different MIDI devices and computers.

**Subnet Mask**

A setting used to divide a large-scale network into several smaller networks.

**TG Master Tune**

The function that allows you to tune the internal XG tone generator, and if connected, an external tone generator simultaneously so that their tunings match that of the Disklavier.

**Tone Generator**

An electronic device that can generate tones or instrument voices.

**Transpose**

Changing the key of a song. For example, a song in the key of C is transposed to the key of D when it is moved up two semitones.

**USB**

An interface for connecting an external device with plug and play. The Disklavier supplies with 2 TO DEVICE terminal with USB 1.1 standard and 1 TO HOST terminal. You can use as the external memory media if connected a USB flash memory or a USB hard disk to TO DEVICE terminal. Also the Disklavier enables you to enjoy a variety of MIDI features by connecting a computer to TO HOST terminal.

**Voice**

The sounds produced by a tone generator expressing various instruments.

**Web Page**

Refers to each individual page that makes up a website.

**Website**

This refers to the group of web pages that are opened together. For example, the collection of web pages whose addresses begin with "*http://www.yamaha.com/*" is referred to as the Yamaha site.

**XG**

Yamaha XG is an extension of the GM (General MIDI) format. Its greater polyphony, more voices, and use of effects enhances the compatibility between MIDI devices. When a song in the Yamaha XG format is played on another XG-compatible tone generator or synthesizer, it plays and sounds as the original composer/creator intended.



# Internal Tone Generator Voices

The following table lists the basic voices for the internal GM/XG and TG3 tone generator.

## Internal GM/XG Tone Generator Basic Voice List

| Voice #                 | Display Name | Voice #         | Display Name | Voice #          | Display Name |
|-------------------------|--------------|-----------------|--------------|------------------|--------------|
| <b>01 Piano</b>         |              | 043             | Orgel        | 086              | OrgFlute     |
| 001                     | GrandPno     | 044             | Vibes        | 087              | TrmOrgFl     |
| 002                     | GrndPnoK     | 045             | VibesK       | 088              | ReedOrgn     |
| 003                     | MelloGrP     | 046             | HardVibe     | 089              | Puff Org     |
| 004                     | PianoStr     | 047             | Marimba      | 090              | Acordion     |
| 005                     | Dream        | 048             | MarimbaK     | 091              | AccordIt     |
| 006                     | BritePno     | 049             | SineMrmb     | 092              | Harmnica     |
| 007                     | BritPnoK     | 050             | Balafon2     | 093              | Harmo 2      |
| 008                     | E.Grand      | 051             | Log Drum     | 094              | TangoAcd     |
| 009                     | EIGrPnoK     | 052             | Xylophon     | 095              | TngoAcd2     |
| 010                     | Det.CP80     | 053             | TubulBel     | <b>04 Guitar</b> |              |
| 011                     | EIGrPno1     | 054             | ChrchBel     | 096              | NylonGtr     |
| 012                     | EIGrPno2     | 055             | Carillon     | 097              | NylonGt2     |
| 013                     | HnkyTonk     | 056             | Dulcimer     | 098              | NylonGt3     |
| 014                     | HnkyTnkK     | 057             | Dulcimr2     | 099              | VelGtHrm     |
| 015                     | E.Piano1     | 058             | Cimbalom     | 100              | Ukulele      |
| 016                     | EI.Pno1K     | 059             | Santur       | 101              | SteelGtr     |
| 017                     | MelloEP1     | <b>03 Organ</b> |              | 102              | SteelGt2     |
| 018                     | Chor.EP1     | 060             | DrawOrgn     | 103              | 12StrGtr     |
| 019                     | HardEI.P     | 061             | DetDrwOr     | 104              | Nyln&Stl     |
| 020                     | VX EI.P1     | 062             | 60sDrOr1     | 105              | Stl&Body     |
| 021                     | 60sEI.P      | 063             | 60sDrOr2     | 106              | Mandolin     |
| 022                     | E.Piano2     | 064             | 70sDrOr1     | 107              | Jazz Gtr     |
| 023                     | EI.Pno2K     | 065             | DrawOrg2     | 108              | MelloGtr     |
| 024                     | Chor.EP2     | 066             | 60sDrOr3     | 109              | JazzAmp      |
| 025                     | DX Hard      | 067             | EvenBar      | 110              | CleanGtr     |
| 026                     | DXLegend     | 068             | 16+2"2/3     | 111              | ChorusGt     |
| 027                     | DX Phase     | 069             | Organ Ba     | 112              | Mute.Gtr     |
| 028                     | DX+Analg     | 070             | 70sDrOr2     | 113              | FunkGtr1     |
| 029                     | DXKotoEP     | 071             | CheezOrg     | 114              | MuteStlG     |
| 030                     | VX EI.P2     | 072             | DrawOrg3     | 115              | FunkGtr2     |
| 031                     | Harpsi.      | 073             | PercOrgn     | 116              | Jazz Man     |
| 032                     | Harpsi.K     | 074             | 70sPcOr1     | 117              | Ovrdrive     |
| 033                     | Harpsi.2     | 075             | DetPrcOr     | 118              | Gt.Pinch     |
| 034                     | Harpsi.3     | 076             | LiteOrg      | 119              | Dist.Gtr     |
| 035                     | Clavi.       | 077             | PercOrg2     | 120              | FeedbkGt     |
| 036                     | Clavi.K      | 078             | RockOrgn     | 121              | FeedbGt2     |
| 037                     | ClaviWah     | 079             | RotaryOr     | 122              | GtrHarmo     |
| 038                     | PulseClv     | 080             | SloRotar     | 123              | GtFeedbk     |
| 039                     | PierceCl     | 081             | FstRotar     | 124              | GtrHrmo2     |
| <b>02 ChromaticPerc</b> |              | 082             | ChrchOrg     | <b>05 Bass</b>   |              |
| 040                     | Celesta      | 083             | ChurOrg3     | 125              | Aco.Bass     |
| 041                     | Glocken      | 084             | ChurOrg2     | 126              | JazzRthm     |
| 042                     | MusicBox     | 085             | NotreDam     | 127              | VXUprght     |

| Voice #           | Display Name |
|-------------------|--------------|
| 128               | FngrBass     |
| 129               | FingrDrk     |
| 130               | FlangeBa     |
| 131               | Ba&DstEG     |
| 132               | FngrSlap     |
| 133               | FngBass2     |
| 134               | ModAlem      |
| 135               | PickBass     |
| 136               | MutePkBa     |
| 137               | Fretless     |
| 138               | Fretles2     |
| 139               | Fretles3     |
| 140               | Fretles4     |
| 141               | SynFretl     |
| 142               | Smooth       |
| 143               | SlapBas1     |
| 144               | ResoSlap     |
| 145               | PunchThm     |
| 146               | SlapBas2     |
| 147               | VeloSlap     |
| 148               | SynBass1     |
| 149               | SynBa1Dk     |
| 150               | FastResB     |
| 151               | AcidBass     |
| 152               | Clv Bass     |
| 153               | TeknoBa      |
| 154               | Oscar        |
| 155               | SqrBass      |
| 156               | RubberBa     |
| 157               | Hammer       |
| 158               | SynBass2     |
| 159               | MelloSB1     |
| 160               | Seq Bass     |
| 161               | ClkSynBa     |
| 162               | SynBa2Dk     |
| 163               | SmthBa 2     |
| 164               | ModulrBa     |
| 165               | DX Bass      |
| 166               | X WireBa     |
| <b>06 Strings</b> |              |
| 167               | Violin       |
| 168               | SlowVln      |
| 169               | Viola        |
| 170               | Cello        |
| 171               | Contrabs     |
| 172               | Trem.Str     |
| 173               | SlwTrStr     |
| 174               | Susp Str     |
| 175               | Pizz.Str     |
| 176               | Harp         |
| 177               | YangChin     |

| Voice #            | Display Name |
|--------------------|--------------|
| 178                | Timpani      |
| <b>07 Ensemble</b> |              |
| 179                | Strings1     |
| 180                | S.Strngs     |
| 181                | SlowStr      |
| 182                | ArcoStr      |
| 183                | 60sStrng     |
| 184                | Orchestr     |
| 185                | Orchstr2     |
| 186                | TremOrch     |
| 187                | VeloStr      |
| 188                | Strings2     |
| 189                | S.SlwStr     |
| 190                | LegatoSt     |
| 191                | Warm Str     |
| 192                | Kingdom      |
| 193                | 70s Str      |
| 194                | Str Ens3     |
| 195                | Syn.Str1     |
| 196                | ResoStr      |
| 197                | Syn Str4     |
| 198                | SS Str       |
| 199                | Syn.Str2     |
| 200                | ChoirAah     |
| 201                | S.Choir      |
| 202                | Ch.Aahs2     |
| 203                | MelChoir     |
| 204                | ChoirStr     |
| 205                | VoiceOoh     |
| 206                | SynVoice     |
| 207                | SynVox2      |
| 208                | Choral       |
| 209                | AnaVoice     |
| 210                | Orch.Hit     |
| 211                | OrchHit2     |
| 212                | Impact       |
| <b>08 Brass</b>    |              |
| 213                | Trumpet      |
| 214                | Trumpet2     |
| 215                | BriteTrp     |
| 216                | WarmTrp      |
| 217                | Trombone     |
| 218                | Trmbone2     |
| 219                | Tuba         |
| 220                | Tuba 2       |
| 221                | Mute.Trp     |
| 222                | Fr.Horn      |
| 223                | FrHrSolo     |
| 224                | FrHorn2      |
| 225                | HornOrch     |
| 226                | BrasSect     |

| Voice #              | Display Name |
|----------------------|--------------|
| 227                  | Tp&TbSec     |
| 228                  | BrssSec2     |
| 229                  | HiBrass      |
| 230                  | MelloBrs     |
| 231                  | SynBras1     |
| 232                  | QuackBr      |
| 233                  | RezSynBr     |
| 234                  | PolyBrss     |
| 235                  | SynBras3     |
| 236                  | JumpBrss     |
| 237                  | AnaVelBr     |
| 238                  | AnaBrss1     |
| 239                  | SynBras2     |
| 240                  | Soft Brs     |
| 241                  | SynBras4     |
| 242                  | ChorBrss     |
| 243                  | VelBras2     |
| 244                  | AnaBrss2     |
| <b>09 Reed</b>       |              |
| 245                  | SprnoSax     |
| 246                  | Alto Sax     |
| 247                  | Sax Sect     |
| 248                  | HyprAlto     |
| 249                  | TenorSax     |
| 250                  | BrthTnSx     |
| 251                  | SoftTenr     |
| 252                  | TnrSax 2     |
| 253                  | Bari.Sax     |
| 254                  | Oboe         |
| 255                  | Eng.Horn     |
| 256                  | Bassoon      |
| 257                  | Clarinet     |
| <b>10 Pipe</b>       |              |
| 258                  | Piccolo      |
| 259                  | Flute        |
| 260                  | Recorder     |
| 261                  | PanFlute     |
| 262                  | Bottle       |
| 263                  | Shakhchi     |
| 264                  | Whistle      |
| 265                  | Ocarina      |
| <b>11 Synth Lead</b> |              |
| 266                  | SquareLd     |
| 267                  | Square 2     |
| 268                  | LMSquare     |
| 269                  | Hollow       |
| 270                  | Shmoog       |
| 271                  | Mellow       |
| 272                  | SoloSine     |
| 273                  | SineLead     |
| 274                  | Saw.Lead     |

## Internal Tone Generator Voices

| Voice #             | Display Name |
|---------------------|--------------|
| 275                 | Saw 2        |
| 276                 | ThickSaw     |
| 277                 | DynaSaw      |
| 278                 | DigiSaw      |
| 279                 | Big Lead     |
| 280                 | HeavySyn     |
| 281                 | WaspySyn     |
| 282                 | PulseSaw     |
| 283                 | Dr. Lead     |
| 284                 | VeloLead     |
| 285                 | Seq Ana      |
| 286                 | CaliopLd     |
| 287                 | Pure Pad     |
| 288                 | Chiff Ld     |
| 289                 | Rubby        |
| 290                 | CharanLd     |
| 291                 | DistLead     |
| 292                 | WireLead     |
| 293                 | Voice Ld     |
| 294                 | SynthAah     |
| 295                 | VoxLead      |
| 296                 | Fifth Ld     |
| 297                 | Big Five     |
| 298                 | Bass &Ld     |
| 299                 | Big&Low      |
| 300                 | Fat&Prky     |
| 301                 | SoftWurl     |
| <b>12 Synth Pad</b> |              |
| 302                 | NewAgePd     |
| 303                 | Fantasy2     |
| 304                 | Warm Pad     |
| 305                 | ThickPad     |
| 306                 | Soft Pad     |
| 307                 | SinePad      |
| 308                 | Horn Pad     |
| 309                 | RotarStr     |
| 310                 | PolySyPd     |
| 311                 | PolyPd80     |
| 312                 | ClickPad     |
| 313                 | Ana Pad      |
| 314                 | SquarPad     |
| 315                 | ChoirPad     |
| 316                 | Heaven2      |
| 317                 | Itopia       |
| 318                 | CC Pad       |
| 319                 | BowedPad     |
| 320                 | Glacier      |
| 321                 | GlassPad     |
| 322                 | MetalPad     |
| 323                 | Tine Pad     |
| 324                 | Pan Pad      |

| Voice #                 | Display Name |
|-------------------------|--------------|
| 325                     | Halo Pad     |
| 326                     | SweepPad     |
| 327                     | Shwimmer     |
| 328                     | Converge     |
| 329                     | PolarPad     |
| 330                     | Celstial     |
| <b>13 Synth Effects</b> |              |
| 331                     | Rain         |
| 332                     | ClaviPad     |
| 333                     | HrmoRain     |
| 334                     | AfrcnWnd     |
| 335                     | Caribbean    |
| 336                     | SoundTrk     |
| 337                     | Prologue     |
| 338                     | Ancestrl     |
| 339                     | Crystal      |
| 340                     | SynDrCmp     |
| 341                     | Popcorn      |
| 342                     | TinyBell     |
| 343                     | RndGlock     |
| 344                     | GlockChi     |
| 345                     | ClearBel     |
| 346                     | ChorBell     |
| 347                     | SynMalet     |
| 348                     | SftCryst     |
| 349                     | LoudGlok     |
| 350                     | XmasBell     |
| 351                     | VibeBell     |
| 352                     | DigiBell     |
| 353                     | AirBells     |
| 354                     | BellHarp     |
| 355                     | Gamelmba     |
| 356                     | Atmosphr     |
| 357                     | WarmAtms     |
| 358                     | HollwRls     |
| 359                     | NylonEP      |
| 360                     | NylnHarp     |
| 361                     | Harp Vox     |
| 362                     | AtmosPad     |
| 363                     | Planet       |
| 364                     | Bright       |
| 365                     | FantaBel     |
| 366                     | Smokey       |
| 367                     | Goblins      |
| 368                     | GobSyn       |
| 369                     | 50sSciFi     |
| 370                     | Ring Pad     |
| 371                     | Ritual       |
| 372                     | ToHeaven     |
| 373                     | Night        |
| 374                     | Glisten      |

| Voice #              | Display Name |
|----------------------|--------------|
| 375                  | BelChoir     |
| 376                  | Echoes       |
| 377                  | EchoPad2     |
| 378                  | Echo Pan     |
| 379                  | EchoBell     |
| 380                  | Big Pan      |
| 381                  | SynPiano     |
| 382                  | Creation     |
| 383                  | Stardust     |
| 384                  | Reso Pan     |
| 385                  | Sci-Fi       |
| 386                  | Starz        |
| <b>14 Ethnic</b>     |              |
| 387                  | Sitar        |
| 388                  | DetSitar     |
| 389                  | Sitar 2      |
| 390                  | Tambra       |
| 391                  | Tamboura     |
| 392                  | Banjo        |
| 393                  | MuteBnjo     |
| 394                  | Rabab        |
| 395                  | Gopichnt     |
| 396                  | Oud          |
| 397                  | Shamisen     |
| 398                  | Koto         |
| 399                  | T.Koto       |
| 400                  | Kanoon       |
| 401                  | Kalimba      |
| 402                  | Bagpipe      |
| 403                  | Fiddle       |
| 404                  | Shanai       |
| 405                  | Shanai2      |
| 406                  | Pungi        |
| 407                  | Hichriki     |
| <b>15 Percussive</b> |              |
| 408                  | TnklBell     |
| 409                  | Bonang       |
| 410                  | Gender       |
| 411                  | Gamelan      |
| 412                  | S.Gamlan     |
| 413                  | Rama Cym     |
| 414                  | AsianBel     |
| 415                  | Agogo        |
| 416                  | SteelDrm     |
| 417                  | GlasPerc     |
| 418                  | ThaiBell     |
| 419                  | WoodBlok     |
| 420                  | Castanet     |
| 421                  | TaikoDrm     |
| 422                  | Gr.Cassa     |
| 423                  | MelodTom     |

## Internal Tone Generator Voices

| Voice #                 | Display Name |
|-------------------------|--------------|
| 424                     | Mel Tom2     |
| 425                     | Real Tom     |
| 426                     | Rock Tom     |
| 427                     | Syn.Drum     |
| 428                     | Ana Tom      |
| 429                     | ElecPerc     |
| 430                     | RevCymb1     |
| <b>16 Sound Effects</b> |              |
| 431                     | FretNoiz     |
| 432                     | BrthNoiz     |
| 433                     | Seashore     |
| 434                     | Tweet        |
| 435                     | Telephone    |
| 436                     | Helicptr     |
| 437                     | Applause     |
| 438                     | Gunshot      |
| <b>18 SFX Voice</b>     |              |
| 450                     | CuttngNz     |
| 451                     | CttngNz2     |
| 452                     | Str Slap     |
| 453                     | Fl.KClk      |
| 454                     | Rain         |
| 455                     | Thunder      |
| 456                     | Wind         |
| 457                     | Stream       |
| 458                     | Bubble       |

| Voice # | Display Name |
|---------|--------------|
| 459     | Feed         |
| 460     | Dog          |
| 461     | Horse        |
| 462     | Bird 2       |
| 463     | Ghost        |
| 464     | Maou         |
| 465     | Tel.Dial     |
| 466     | DoorSqek     |
| 467     | DoorSlam     |
| 468     | Scratch      |
| 469     | Scratch2     |
| 470     | WindChm      |
| 471     | Telphon2     |
| 472     | CarEngin     |
| 473     | Car Stop     |
| 474     | Car Pass     |
| 475     | CarCrash     |
| 476     | Siren        |
| 477     | Train        |
| 478     | Jetplane     |
| 479     | Starship     |
| 480     | Burst        |
| 481     | Coaster      |
| 482     | SbMarine     |
| 483     | Laughing     |
| 484     | Scream       |

| Voice # | Display Name |
|---------|--------------|
| 485     | Punch        |
| 486     | Heart        |
| 487     | FootStep     |
| 488     | MchinGun     |
| 489     | LaserGun     |
| 490     | Xplosion     |
| 491     | FireWork     |

## Internal GM/XG Tone Generator Drum Voice List

| Voice #            | Display Name |
|--------------------|--------------|
| <b>17 Drum Kit</b> |              |
| 439                | StandKit     |
| 440                | Stnd2Kit     |
| 441                | Room Kit     |
| 442                | Rock Kit     |
| 443                | ElectKit     |
| 444                | AnalgKit     |
| 445                | Jazz Kit     |
| 446                | BrushKit     |
| 447                | ClascKit     |
| 448                | SFX Kit1     |
| 449                | SFX Kit2     |

## Internal TG3 Tone Generator Basic Voice List

| Voice #                 | Display Name |
|-------------------------|--------------|
| <b>01 Piano</b>         |              |
| 001                     | GrandPno     |
| 002                     | BritePno     |
| 003                     | E.Grand      |
| 004                     | HnkyTonk     |
| 005                     | E.Piano1     |
| 006                     | E.Piano2     |
| 007                     | Harpsi.      |
| 008                     | Clavi.       |
| <b>02 ChromaticPerc</b> |              |
| 009                     | Celesta      |
| 010                     | Glocken      |
| 011                     | MusicBox     |
| 012                     | Vibes        |
| 013                     | Marimba      |
| 014                     | Xylophon     |
| 015                     | TubulBel     |

| Voice #          | Display Name |
|------------------|--------------|
| 016              | Dulcimer     |
| <b>03 Organ</b>  |              |
| 017              | DrawOrgn     |
| 018              | PercOrgn     |
| 019              | RockOrgn     |
| 020              | ChrchOrg     |
| 021              | ReedOrgn     |
| 022              | Acordion     |
| 023              | Harmnica     |
| 024              | TangoAcid    |
| <b>04 Guitar</b> |              |
| 025              | NylonGtr     |
| 026              | SteelGtr     |
| 027              | Jazz Gtr     |
| 028              | CleanGtr     |
| 029              | Mute.Gtr     |
| 030              | Ovrdrive     |

| Voice #           | Display Name |
|-------------------|--------------|
| 031               | Dist.Gtr     |
| 032               | GtrHarmo     |
| <b>05 Bass</b>    |              |
| 033               | Aco.Bass     |
| 034               | FngrBass     |
| 035               | PickBass     |
| 036               | Fretless     |
| 037               | SlapBas1     |
| 038               | SlapBas2     |
| 039               | SynBass1     |
| 040               | SynBass2     |
| <b>06 Strings</b> |              |
| 041               | Violin       |
| 042               | Viola        |
| 043               | Cello        |
| 044               | Contrabs     |
| 045               | Trem.Str     |

## Internal Tone Generator Voices

| Voice #              | Display Name |
|----------------------|--------------|
| 046                  | Pizz.Str     |
| 047                  | Harp         |
| 048                  | Timpani      |
| <b>07 Ensemble</b>   |              |
| 049                  | Strings1     |
| 050                  | Strings2     |
| 051                  | Syn.Str1     |
| 052                  | Syn.Str2     |
| 053                  | ChoirAah     |
| 054                  | VoiceOoh     |
| 055                  | SynVoice     |
| 056                  | Orch.Hit     |
| <b>08 Brass</b>      |              |
| 057                  | Trumpet      |
| 058                  | Trombone     |
| 059                  | Tuba         |
| 060                  | Mute.Trp     |
| 061                  | Fr.Horn      |
| 062                  | BrasSect     |
| 063                  | SynBras1     |
| 064                  | SynBras2     |
| <b>09 Reed</b>       |              |
| 065                  | SprnoSax     |
| 066                  | Alto Sax     |
| 067                  | TenorSax     |
| 068                  | Bari.Sax     |
| 069                  | Oboe         |
| 070                  | Eng.Horn     |
| 071                  | Bassoon      |
| 072                  | Clarinet     |
| <b>10 Pipe</b>       |              |
| 073                  | Piccolo      |
| 074                  | Flute        |
| 075                  | Recorder     |
| 076                  | PanFlute     |
| 077                  | Bottle       |
| 078                  | Shakhchi     |
| 079                  | Whistle      |
| 080                  | Ocarina      |
| <b>11 Synth Lead</b> |              |
| 081                  | SquareLd     |
| 082                  | Saw.Lead     |
| 083                  | CaliopLd     |
| 084                  | Chiff Ld     |
| 085                  | CharanLd     |
| 086                  | Voice Ld     |
| 087                  | Fifth Ld     |
| 088                  | Bass &Ld     |
| <b>12 Synth Pad</b>  |              |
| 089                  | NewAgePd     |
| 090                  | Warm Pad     |

| Voice #                 | Display Name |
|-------------------------|--------------|
| 091                     | PolySyPd     |
| 092                     | ChoirPad     |
| 093                     | BowedPad     |
| 094                     | MetalPad     |
| 095                     | Halo Pad     |
| 096                     | SweepPad     |
| <b>13 Synth Effects</b> |              |
| 097                     | Rain         |
| 098                     | SoundTrk     |
| 099                     | Crystal      |
| 100                     | Atmosphr     |
| 101                     | Bright       |
| 102                     | Goblins      |
| 103                     | Echoes       |
| 104                     | Sci-Fi       |
| <b>14 Ethnic</b>        |              |
| 105                     | Sitar        |
| 106                     | Banjo        |
| 107                     | Shamisen     |
| 108                     | Koto         |
| 109                     | Kalimba      |
| 110                     | Bagpipe      |
| 111                     | Fiddle       |
| 112                     | Shanai       |
| <b>15 Percussive</b>    |              |
| 113                     | TnklBell     |
| 114                     | Agogo        |
| 115                     | SteelDrm     |
| 116                     | WoodBlok     |
| 117                     | TaikoDrm     |
| 118                     | MelodTom     |
| 119                     | Syn.Drum     |
| 120                     | RevCymbI     |
| <b>16 Sound Effects</b> |              |
| 121                     | FretNoiz     |
| 122                     | BrthNoiz     |
| 123                     | Seashore     |
| 124                     | Tweet        |
| 125                     | Telephone    |
| 126                     | Helicptr     |
| 127                     | Applause     |
| 128                     | Gunshot      |

### Internal TG3 Tone Generator Drum Voice List

| Voice #            | Display Name |
|--------------------|--------------|
| <b>17 Drum Kit</b> |              |
| 129                | StandKit     |

## General Specifications

|                        |                          |  |
|------------------------|--------------------------|--|
| Data Storage           | Internal Memory          | 128 MB   |
| Removable Media        | CD-ROM                   | Audio CD (CD-DA), Data CD (ISO9660 Level1-compliant)   |
|                        | USB Flash Memory         | FAT16 or FAT32 format<br>Yamaha does not assure the operation of the commercially available USB flash memories.  |
|                        | Floppy Disk <sup>1</sup> | 3.5" 2DD (720 KB) or 2HD (1.44 MB)   |
| File Format            |                          | Standard MIDI File (SMF) format 0, Standard MIDI File (SMF) format 1, E-SEQ format   |
| Song Format            |                          | PianoSoft (Solo), PianoSoft-Plus, PianoSoft-PlusAudio, SmartPianoSoft, SmartKey (CueTIME) <sup>2 3</sup>   |
| Pitch Control          |                          | Set at A=440Hz, tunable -50 to +50 cents in 1 cent increment   |
| Ensemble Tone          | Type                     | Advanced Wave Memory 2 (AWM2)  |
|                        | Polyphony                | 32 notes (max.)  |
|                        | Ensemble Parts           | 16 parts   |
|                        | Voice Module Modes       | XG, GM   |
|                        | Normal Voices            | 676 voices (480 voices can be used for playing)  |
|                        | Drum Voices              | 21 kits (11 kits can be used for playing)  |
| Connectors             | MIDI                     | MIDI IN, MIDI OUT  |
|                        | Audio                    | OUTPUT, ANALOG MIDI IN, OMNI IN, OMNI OUT  |
|                        | Others                   | LAN, USB (1 × TO HOST, 2 × TO DEVICE)  |
| Dimensions (W × H × D) |                          | 292 × 49 × 216 mm (11-1/2" × 1-15/16" × 8-1/2")  |
| Weight                 |                          | 2.7 kg (5.95 lb)   |
| Rated Power            |                          | DC12 V 3A, 50/60 Hz  |
| Power Consumption      |                          | 14 W   |
| Supplied Accessories   |                          | Remote control (1), battery for remote control (2), remote control sensor shielding sticker (1), sample PianoSoft CD software (1), MIDI cable (2), audio cable (3), conversion cable for control (1), AC adaptor (PJP-PS02/PJP-PS04 or an equivalent recommended by Yamaha) (1), power cable (1), operation manual (1), PianoSoft CD song list (1) |
| Optional Accessories   |                          | Control unit suspension kit <sup>4</sup> , USB floppy disk drive (UD-FD01)   |

## Functions & Controls

|                     |   |   |
|---------------------|---|---|
| Playback Functions  | Media Select  | Internal memory, CD, USB media (including floppy disk)  |
|                     | Song Select   | Cursor buttons (control unit), cursor buttons/numeric section (remote control)                              |
|                     | Basic Functions   | Play, stop, pause   |
|                     | Song Search   | Reverse/forward w/ sound (MIDI songs), reverse/forward w/o sound (audio songs), directly by time or measure |
|                     | Repeat  | ALL (all songs in current album), RPT (current song), RND (all songs in current album in random order), A-B |
|                     | Part Cancel   | L (left), R (right), pedal  |
|                     | Timer Playback  | See page 51.  |
|                     | SmartKey™ Playback <sup>*2 *3</sup>   | See page 56.  |
|                     | Video Synchronization   | See page 75.  |
|                     | PianoSmart™ Playback  | See page 77.  |
|                     | Volume  | 11 levels (-10 to 0)  |
|                     | Tempo   | -50 to 50% in 1% increment  |
|                     | Transposition   | -24 to +24 semitones (2 octaves) in 1 semitone increment  |
|                     | Balance (TG, Audio)   | 10 to 127   |
| Recording Functions | Piano Part Recording  | L/R overwrite, split  |
|                     | Metronome Mode Recording  | See page 58.  |
|                     | Tempo Change  | See page 65.  |
|                     | Video Synchronization   | See page 71.  |
|                     | Audio CD Synchronization  | See page 76.  |
| Metronome           | Tempo   | 30 to 400 beats per minutes   |
|                     | Time Signatures   | 1/4, 2/4, 3/4, 4/4, 5/4, 6/4, 7/4, 8/4, 9/4   |
|                     | Volume  | Controllable  |
| Utility Functions   | Song  | Copy, delete, rename, sort, add to playlist, type convert, time format convert, strip XP                    |
|                     | Album   | Copy, delete, create, rename, sort, add to playlist   |
|                     | Playlist  | Create, delete, rename  |
|                     | Backup/Restore  | See pages 107 and 108.  |
|                     | Floppy Disk <sup>*1</sup>   | Format  |
| Network Functions   | DisklavierRadio <sup>*3</sup>   | See pages 30 and 37.  |
|                     | FromToPC Folder   | See pages 101 to 105.   |
|                     | Network Update <sup>*3</sup>  | See page 39.  |
| Update              | Firmware update with media (CD-ROM or USB flash memory) or via the Internet <sup>*3</sup> |   |

Specifications are subject to change without prior notice.

**Note:** <sup>\*1</sup> Possible with optional USB floppy disk drive (UD-FD01).

<sup>\*2</sup> Available only on models capable of SmartKey™ playback.

<sup>\*3</sup> Available only on models of which the control unit is replaced with the Disklavier control unit.

<sup>\*4</sup> Available only on grand pianos.

# disklavier™

Disklavier Control Unit DKC-850

## Appendix



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## expat

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jpg "Clone me," says Dolly sheepishly

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## pam

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## unzip

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# MIDI Data Format

If you are familiar with MIDI, or are using a computer to control your music software with computer-generated MIDI messages, the data provided in this section can help you to control your Disklavier. Messages include those that can be received by the piano part and/or those that can be received by an ESBL part. Messages that can be transmitted as well as received are shown as “transmitted.”

## 1. CHANNEL MESSAGES

### 1.1 Key On / Key Off

(Piano Part, ESBL Part) (transmitted)

Piano Part reception note range = A-1~C7 : C3=60

ESBL part reception note range = C-2~G8

Velocity range = 1~127 (Only the Key On velocity is received)

### 1.2 Control Change

#### 1.2.1 Bank Select

(ESBL Part) (transmitted)

| Cntrl# | Parameter       | Data Range  |
|--------|-----------------|---|
| 0      | Bank Select MSB | 0: Normal,<br>63: User voice,<br>64: SFX,<br>126: SFX kit,<br>127: Drum |
| 32     | Bank Select LSB | 0...127   |

You can select the Voice banks with MSB and LSB numbers. MSB and LSB functions differently depending on the play mode. In XG mode, MSB numbers select Voice type (Normal Voice or Drum Voice), and LSB number select Voice banks. In TG300B mode, LSB is fixed, and MSB numbers select Voice banks.

(See Normal Voice List Drum Voice List.)

A new bank selection will not become effective until the next Program Change message is received.

#### 1.2.2 Modulation

(ESBL Part)

| Cntrl# | Parameter  | Data Range |
|--------|------------|------------|
| 1      | Modulation | 0...127    |

#### 1.2.3 Portamento Time

(ESBL Part)

| Cntrl# | Parameter       | Data Range |
|--------|-----------------|------------|
| 5      | Portamento Time | 0...127    |

When the parameter 1.2.9 Portamento = ON, values will adjust the speed of pitch change.

A setting of 0 - minimum portamento time, and 127 - maximum portamento time.

#### 1.2.4 Data Entry

(ESBL Part)

Messages which set the value for the parameter specified by RPN/NRPN.

| Cntrl# | Parameter      | Data Range |
|--------|----------------|------------|
| 6      | Data Entry MSB | 0...127    |
| 38     | Data Entry LSB | 0...127    |

Parameter value is determined by combining MSB and LSB.

#### 1.2.5 Main Volume

(Piano Part, ESBL Part) (transmitted)

| Cntrl# | Parameter   | Data Range |
|--------|-------------|------------|
| 7      | Main Volume | 0...127    |

#### 1.2.6 Pan

(ESBL Part)

| Cntrl# | Parameter | Data Range |
|--------|-----------|------------|
| 10     | Pan       | 0...127    |

#### 1.2.7 Expression

(Piano Part, ESBL Part)

| Cntrl# | Parameter  | Data Range |
|--------|------------|------------|
| 11     | Expression | 0...127    |

#### 1.2.8 Hold1

(Piano Part, ESBL Part) (transmitted)

| Cntrl# | Parameter | Data Range                       |
|--------|-----------|----------------------------------|
| 64     | Hold1     | 0...127<br>(0-63:off, 64-127:on) |

#### 1.2.9 Portamento (ESBL Part)

| Cntrl# | Parameter  | Data Range                       |
|--------|------------|----------------------------------|
| 65     | Portamento | 0...127<br>(0-63:off, 64-127:on) |

#### 1.2.10 Sostenuto

(Piano Part, ESBL Part) (transmitted)

| Cntrl# | Parameter | Data Range                       |
|--------|-----------|----------------------------------|
| 66     | Sostenuto | 0...127<br>(0-63:off, 64-127:on) |

#### 1.2.11 Soft Pedal

(Piano Part, ESBL Part) (transmitted)

| Cntrl# | Parameter  | Data Range                       |
|--------|------------|----------------------------------|
| 67     | Soft Pedal | 0...127<br>(0-63:off, 64-127:on) |

#### 1.2.12 Harmonic Content

(ESBL Part)

Messages which adjust the resonance set for each Voice.

| Cntrl# | Parameter        | Data Range                         |
|--------|------------------|------------------------------------|
| 71     | Harmonic Content | 0...127<br>(0:-64, 64:+0, 127:+63) |

Higher values will result in a more characteristic, resonant sound.

Depending on the Voice, the effective range may be narrower than the range available for adjustment.

#### 1.2.13 Release Time

(ESBL Part)

Messages which adjust the envelope release time set for each Voice.

| Cntrl# | Parameter    | Data Range                         |
|--------|--------------|------------------------------------|
| 72     | Release Time | 0...127<br>(0:-64, 64:+0, 127:+63) |

#### 1.2.14 Attack Time

(ESBL Part)

Messages which adjust the envelope attack time set for each Voice.

| Cntrl# | Parameter   | Data Range                         |
|--------|-------------|------------------------------------|
| 73     | Attack Time | 0...127<br>(0:-64, 64:+0, 127:+63) |

#### 1.2.15 Brightness

(ESBL Part)

Messages which adjust the filter cutoff frequency set for each Voice.

| Cntrl# | Parameter  | Data Range                         |
|--------|------------|------------------------------------|
| 74     | Brightness | 0...127<br>(0:-64, 64:+0, 127:+63) |

#### 1.2.16 Portamento Control

(ESBL Part)

Messages which apply a portamento between the currently-sounding note and the subsequent note.

| Cntrl# | Parameter          | Data Range |
|--------|--------------------|------------|
| 84     | Portamento Control | 0...127    |

#### 1.2.17 Effect1 Depth (Reverb Send Level)

(ESBL Part)

| Cntrl# | Parameter     | Data Range |
|--------|---------------|------------|
| 91     | Effect1 Depth | 0...127    |

# MIDI Data Format

## 1.2.18 Effect3 Depth (Chorus Send Level) (ESBL Part)

| Cntrl# | Parameter     | Data Range |
|--------|---------------|------------|
| 93     | Effect3 Depth | 0...127    |

## 1.2.19 Effect4 Depth (Variation Effect Send Level) (ESBL Part)

| Cntrl# | Parameter     | Data Range |
|--------|---------------|------------|
| 94     | Effect4 Depth | 0...127    |

## 1.2.20 Data Increment / Decrement (for RPN) (ESBL Part)

| Cntrl# | Parameter     | Data Range |
|--------|---------------|------------|
| 96     | RPN Increment | 0...127    |
| 97     | RPN Decrement | 0...127    |

## 1.2.21 NRPN (Non-Registered Parameter Number) (ESBL Part)

| Cntrl# | Parameter | Data Range |
|--------|-----------|------------|
| 98     | NRPN LSB  | 0...127    |
| 99     | NRPN MSB  | 0...127    |

First send the NRPN MSB and NRPN LSB to specify the parameter which is to be controlled. Then use Data Entry to set the value of the specified parameter.

\* Note that once the NRPN has been set for a channel subsequent data entry will be recognized as the same NRPN's value change. Therefore, after you use the NRPN, you should set a Null (7FH, 7FH) value to avoid an unexpected result.

The following NRPN number can be received.

| NRPN MSB | NRPN LSB | Data entry MSB | Data entry LSB | PARAMETER NAME and VALUE RANGE   |
|----------|----------|----------------|----------------|--|
| \$01     | \$08     | \$mm           |                | Vibrato Rate<br>mm : \$00 - \$40 - \$7F (-64 - 0 - +63)  |
| \$01     | \$09     | \$mm           |                | Vibrato Depth<br>mm : \$00 - \$40 - \$7F (-64 - 0 - +63)   |
| \$01     | \$0A     | \$mm           |                | Vibrato Delay<br>mm : \$00 - \$40 - \$7F (-64 - 0 - +63)   |
| \$01     | \$20     | \$mm           |                | Filter Cutoff Frequency<br>mm : \$00 - \$40 - \$7F (-64 - 0 - +63)   |
| \$01     | \$21     | \$mm           |                | Filter Resonance<br>mm : \$00 - \$40 - \$7F (-64 - 0 - +63)  |
| \$01     | \$63     | \$mm           |                | EG Attack Time<br>mm : \$00 - \$40 - \$7F (-64 - 0 - +63)  |
| \$01     | \$64     | \$mm           |                | EG Decay Time<br>mm : \$00 - \$40 - \$7F (-64 - 0 - +63)   |
| \$01     | \$66     | \$mm           |                | EG Release Time<br>mm : \$00 - \$40 - \$7F (-64 - 0 - +63)   |
| \$14     | \$rr     | \$mm           |                | Drum Filter Cutoff Frequency<br>mm : \$00 - \$40 - \$7F (-64 - 0 - +63)<br>rr : drum instrument note number                        |
| \$15     | \$rr     | \$mm           |                | Drum Filter Resonance<br>mm : \$00 - \$40 - \$7F (-64 - 0 - +63)<br>rr : drum instrument note number                               |
| \$16     | \$rr     | \$mm           |                | Drum EG Attack<br>mm : \$00 - \$40 - \$7F (-64 - 0 - +63)<br>rr : drum instrument note number                                      |
| \$17     | \$rr     | \$mm           |                | Drum EG Decay Rate<br>mm : \$00 - \$40 - \$7F (-64 - 0 - +63)<br>rr : drum instrument note number<br>Applies to both Decay1 and 2. |
| \$18     | \$rr     | \$mm           |                | Drum Instrument Pitch Coarse<br>mm : \$00 - \$40 - \$7F (-64 - 0 - +63)<br>rr : drum instrument note number                        |
| \$19     | \$rr     | \$mm           |                | Drum Instrument Pitch Fine<br>mm : \$00 - \$40 - \$7F (-64 - 0 - +63)<br>rr : drum instrument note number                          |
| \$1A     | \$rr     | \$mm           |                | Drum Instrument Level<br>mm : \$00 - \$7F (0 - max)<br>rr : drum instrument note number  |
| \$1C     | \$rr     | \$mm           |                | Drum Instrument Pan<br>mm : \$00 - \$40 - \$7F (random, left - center - right)<br>rr : drum instrument note number                 |

\$1D \$rr \$mm Drum Instrument Reverb Send Level  
mm : \$00 - \$7F (0 - max)

\$1E \$rr \$mm Drum Instrument Chorus Send Level  
mm : \$00 - \$7F (0 - max)

\$1F \$rr \$mm Drum Instrument Variation Send Level  
mm : \$00 - \$7F (0 - max)  
rr : drum instrument note number

MSB 14H- 1FH (for Drum) is valid only if the Multi Part parameter PART MODE = DRUMS 1 or DRUMS2 for that channel. (If PART MODE = DRUM, no values will be changed.)

## 1.2.22 RPN (Registered Parameter Number) (ESBL Part)

| Cntrl# | Parameter | Data Range |
|--------|-----------|------------|
| 100    | RPN LSB   | 0...127    |
| 101    | RPN MSB   | 0...127    |

The following RPN numbers can be received.

| RPN MSB | RPN LSB | Data entry MSB | Data entry LSB | PARAMETER NAME and VALUE RANGE  |
|---------|---------|----------------|----------------|---|
| 00H     | 00H     | mmH            | —              | Pitch Bend Sensitivity<br>mm:00-18H (0-24 chromatic steps)<br>Assignable in chromatic steps up to 2 octaves<br>Default : 02H<br>LSB value is ignored. |
| 00H     | 01H     | mmH            | 11H            | Fine Tuning<br>mm: 00H-40H-7FH (-64-0-+63)  |
| 00H     | 02H     | mmH            | —              | Coarse Tuning<br>mm: 28H - 40H - 58H (-24 - +24 chromatic steps)<br>LSB value is ignored.   |
| 7FH     | 7FH     | —              | —              | RPN null<br>Cancels RPN and NRPN numbers  |

## 1.2.23 Channel Mode Messages

The following Channel Mode Messages can be received.

| 2nd byte | 3rd byte |                       |
|----------|----------|-----------------------|
| 120      | 0        | All Sound Off         |
| 121      | 0        | Reset All Controllers |
| 123      | 0        | All Note Off          |
| 124      | 0        | Omni Off              |
| 125      | 0        | Omni On               |
| 126      | 0 ~ 16   | Mono                  |
| 127      | 0        | Poly                  |

### 1.2.23.1 All Sound Off

(Piano Part, ESBL Part) (transmitted)

ESBL part;  
Terminates all sounds currently sounding on the specified channel. However, the status of channel messages such as Note On and Hold On is maintained.

Piano Part;  
The status of channel messages is not maintained.

### 1.2.23.2 Reset All Controllers

(ESBL Part)

The values of the following controllers will be reset to the defaults.

| CONTROLLER            | VALUE       |
|-----------------------|-------------|
| Pitch Bend Change     | ±0 (center) |
| Channel Aftertouch    | 0 (off)     |
| Polyphonic Aftertouch | 0 (off)     |
| Modulation            | 0 (off)     |
| Expression            | 127 (max)   |
| Hold 1                | 0 (off)     |
| Portamento            | 0 (off)     |
| Sostenuto             | 0 (off)     |
| Soft Pedal            | 0 (off)     |

Portamento Control      cancels the Portamento Source Key Number that was received  
 RPN                              number not specified; internal data will not change  
 NRPN                            number not specified; internal data will not change

1.2.23.3 All Note Off

(Piano Part, ESBL Part) (transmitted)

Terminates all notes currently on for the specified channel. However, if Hold 1 or Sostenuto is on, notes will continue sounding until these are turned off.

1.2.23.4 Omni Off

(Piano Part, ESBL Part)

Performs the same function as when an All Notes Off message is received.

1.2.23.5 Omni On

(Piano Part, ESBL Part)

Performs the same function as when an All Notes Off message is received.

1.2.23.6 Mono

(Piano Part, ESBL Part)

Performs the same function as when an All Sounds off message is received, and if the 3rd byte (mono number) is in the range of 0 - 16, sets the corresponding channel to Mono Mode (Mode 4 : m = 1).

1.2.23.7 Poly

(Piano Part, ESBL Part)

Performs the same function as when an All Sounds Off message is received. and sets the corresponding channel to Poly Mode (Mode 3).

1.2.24 Local Control

(Piano Part, ESBL Part)

0;Off    Disklavier keyboard does not play the internal voices.  
 127;On

1.3 Program Change

(ESBL Part) (transmitted)

Messages for Voice selection.  
 With a combination of Bank Select, you can select not only basic Voice numbers, but also variation Voice bank numbers.

1.4 Pitch Bend

(ESBL Part)

When Multi Part Parameter Rcv PITCH BEND CHANGE=OFF, pitch bend for that part is not received.

1.5 Channel Aftertouch

(ESBL Part)

1.6 Polyphonic Aftertouch

(ESBL Part) (PianoPart) (transmitted)

Applying further pressure on the key does not output "key aftertouch" information. Instead, key position is transmitted as additional information.

2. SYSTEM EXCLUSIVE MESSAGES

2.1 Parameter Change

The Disklavier receives the following parameter change messages.

[UNIVERSAL REALTIME MESSAGE]

1) Master Volume

[UNIVERSAL NON REALTIME MESSAGE]

1) General MIDI Mode On

[XG NATIVE]

1) XG System on

2) XG System Data parameter change

3) Multi Effect1 Data parameter change

4) Multi Part Data parameter change

5) Drums Setup Data parameter change

[OTHER]

1) Master tuning

2) TG300 System Data Parameter change

3) TG300 Multi Effect Data parameter change

4) TG300 Multi Part Data parameter change

2.1.2 Universal Realtime Messages

2.1.2.1 Master Volume

(Piano Part, ESBL Part)

11110000 F0 = Exclusive status  
 01111111 7F = Universal Real Time  
 01111111 7F = ID of target device  
 00000100 04 = Sub-ID #1=Device Control Message  
 00000001 01 = Sub-ID #2=Master Volume  
 0sssssss \*SS = Volume LSB  
 0tttttt TT = Volume MSB  
 11110111 F7 = End of Exclusive

or

11110000 F0 = Exclusive status  
 01111111 7F = Universal Real Time  
 0xxnnnnn XN = Device Number, xxx = don't care  
 00000100 04 = Sub-ID #1=Device Control Message  
 00000001 01 = Sub-ID #2=Master Volume  
 0sssssss SS = Volume LSB  
 0tttttt TT = Volume MSB  
 11110111 F7 = End of Exclusive

When received, the Volume MSB will be effective for the System Parameter MASTER VOLUME.

\* "SS" is the hexadecimal expression of 0sssssss; same as for "tt", "aa", etc.

2.1.3 Universal Non-Realtime Messages

2.1.3.1 General MIDI Mode On

(ESBL Part)

11110000 F0 = Exclusive status  
 01111110 7E = Universal Non-Real Time  
 01111111 7F = ID of target device  
 00001001 09 = Sub-ID #1=General MIDI Message  
 00000001 01 = Sub-ID #2=General MIDI On  
 11110111 F7 = End of Exclusive

or

11110000 F0 = Exclusive status  
 01111110 7E = Universal Non-Real Time  
 0xxnnnnn XN = Device Number, xxx = don't care  
 00001001 09 = Sub-ID #1=General MIDI Message  
 00000001 01 = Sub-ID #2=General MIDI On  
 11110111 F7 = End of Exclusive

When General MIDI Mode On is received. the play mode will be changed to XG mode.

When this happens, the ESBL part will receive the MIDI messages which compatible with GM System Level 1, and consequently will not receive NRPN and Bank Select messages. Since approximately 50ms is required to execute this message, be sure to leave an appropriate interval before the subsequent message.

2.1.4 XG Native Parameter Change

(ESBL Part)

With the Parameter Change messages as listed below, you can change the characteristic of a Voice, such as by Effect Type or effect parameter, transpose, tuning, and others.

11110000 F0 Exclusive status  
 01000011 43 YAMAHA ID  
 0001nnnn 1n Device Number  
 01001100 4C XG Model ID  
 0aaaaaaa aaaaaaa Address High  
 0aaaaaaa aaaaaaa Address Mid  
 0aaaaaaa aaaaaaa Address Low  
 0ddddddd ddddddd Data  
 | |  
 11110111 F7 End of Exclusive

\* Any number is OK since the device number for the Disklavier is fixed to "All."

For parameters with data size of 2 or 4, transmit the appropriate number of data bytes.

When sending the parameter change messages consecutively, be sure to leave an appropriate interval (if the time base is 480. ca 5 unit) between the messages.

## 2.1.4.1 XG System On (ESBL Part)

|          |    |                  |
|----------|----|------------------|
| 11110000 | F0 | Exclusive status |
| 01000011 | 43 | YAMAHA ID        |
| 0001nnnn | 1N | Device Number    |
| 01001100 | 4C | XG Model ID      |
| 0aaaaaaa | 00 | Address High     |
| 0aaaaaaa | 00 | Address Mid      |
| 0aaaaaaa | 7E | Address Low      |
| 00000000 | 00 | Data             |
| 11110111 | F7 | End of Exclusive |

When this data is received, the Disklavier will switch to XG mode and all the parameters will be initialized accordingly, and XG-compatible messages such as NRPN and Bank Select messages can be received.

Since approximately 50ms is required to execute this message, be sure to leave an appropriate interval before the subsequent message

## 2.1.4.2 XG System Data parameter change (ESBL Part)

See tables <1-1> and <1-2>.

## 2.1.4.3 Multi Effect1 Data parameter change (ESBL Part)

See tables <1-1> and <1-3>.

## 2.1.4.4 Multi Part Data parameter change (ESBL Part)

See tables <1-1> and <1-4>.

## 2.1.4.5 Drums Setup Data parameter change (ESBL Part)

See tables <1-1> and <1-5>.

If a Drum Setup Reset parameter change message is received, the Drum Setup parameter values will be initialized.

Selecting a Drum Set will cause the Drum Setup parameter values to be initialized.

## 2.1.5 Other parameter changes

### 2.1.5.1 Master Tuning (ESBL Part)

|          |    |                  |
|----------|----|------------------|
| 11110000 | F0 | Exclusive status |
| 01000011 | 43 | YAMAHA ID        |
| 0001nnnn | 1n | Device Number    |
| 00100111 | 27 | Model ID         |
| 00110000 | 30 | Sub ID2          |
| 00000000 | 00 |                  |
| 00000000 | 00 |                  |
| 0mmmmmmm | mm | Master Tune MSB  |
| 0lllllll | ll | Master Tune LSB  |
| 0ccccccc | cc |                  |
| 11110111 | F7 | End of Exclusive |

This message simultaneously changes the pitch of all channels.

## 2.2 Bulk Dump (ESBL Part)

The Disklavier receives the following bulk dump data.

[XG NATIVE]

- 1) XG System Data
- 2) Multi Effect1 Data
- 3) Multi Part Data
- 4) Drums Setup Data

[QS300 NATIVE]

- 1) QS300 User Normal Voice Data

## 2.2.1 XG Native Bulk Dump

|          |         |                  |
|----------|---------|------------------|
| 11110000 | F0      | Exclusive status |
| 01000011 | 43      | YAMAHA ID        |
| 0000nnnn | 0n      | Device Number    |
| 01001100 | 4C      | XG Model ID      |
| 0bbbbbbb | bbbbbbb | ByteCount        |
| 0bbbbbbb | bbbbbbb | ByteCount        |
| 0aaaaaaa | aaaaaaa | Address High     |
| 0aaaaaaa | aaaaaaa | Address Mid      |
| 0aaaaaaa | aaaaaaa | Address Low      |
| 0ddddddd | dd      | Data             |
|          |         |                  |
|          |         |                  |
| 0ccccccc | ccccccc | Checksum         |
| 11110111 | F7      | End of Exclusive |

For the Address and Byte Count, refer to the supplementary tables.

The Checksum is the value that results in a value of 0 for the lower 7 bits when the Start Address, Byte Count, plus the Checksum itself are added.

### 2.2.1.1 XG System Data bulk dump (ESBL Part)

See tables <1-1> and <1-2>.

### 2.2.1.2 Multi Effect1 Data bulk dump (ESBL Part)

See tables <1-1> and <1-3>.

### 2.2.1.3 Multi Part Data bulk dump (ESBL Part)

See tables <1-1> and <1-4>.

### 2.2.1.4 Drums Setup Data bulk dump (ESBL Part)

See tables <1-1> and <1-5>.

## 2.2.2 QS300 Native Bulk Dump

|          |         |                  |
|----------|---------|------------------|
| 11110000 | F0      | Exclusive status |
| 01000011 | 43      | YAMAHA ID        |
| 0000nnnn | 0n      | Device Number    |
| 01001101 | 4B      | QS300 Model ID   |
| 0bbbbbbb | bbbbbbb | ByteCount        |
| 0bbbbbbb | bbbbbbb | ByteCount        |
| 0aaaaaaa | aaaaaaa | Address High     |
| 0aaaaaaa | aaaaaaa | Address Mid      |
| 0aaaaaaa | aaaaaaa | Address Low      |
| 0ddddddd | dd      | Data             |
|          |         |                  |
|          |         |                  |
| 0ccccccc | ccccccc | Checksum         |
| 11110111 | F7      | End of Exclusive |

### 2.2.2.1 QS300 User Normal Voice Data bulk dump (ESBL Part)

See tables <2-1> and <2-2>.



### 3. SYSTEM REALTIME MESSAGES

#### 3.1 Active Sensing

- a) Transmission  
Transmitted.
- b) Reception  
Once FE has been received, if no MIDI data is subsequently received for longer than an interval of approximately 300msec, the Disklavier will perform the same function as when ALL SOUNDS OFF, ALL NOTES OFF, and RESET ALL CONTROLLERS messages are received, and will then return to a status in which FE is not monitored.

<Table 1-1>

Parameter Bass Address  
Model ID = 4C [XG]

|            | Parameter Change Address |     |     | Description                         |
|------------|--------------------------|-----|-----|-------------------------------------|
|            | (H)                      | (M) | (L) |                                     |
| XG SYSTEM  | 00                       | 00  | 00  | System                              |
|            | 00                       | 00  | 7D  | Drum setup Reset                    |
|            | 00                       | 00  | 7E  | XG System On                        |
|            | 00                       | 00  | 7F  | All Parameter Reset                 |
| EFFECT1    | 02                       | 01  | 00  | Effect1 (Reverb, Chorus, Variation) |
| MULTI PART | 08                       | 00  | 00  | Multi Part 1<br>:                   |
|            | 08                       | 0F  | 00  | Multi Part 16                       |
| DRUM       | 30                       | 18  | 00  | Drum Setup 1                        |
|            | 30                       | 18  | 00  | Drum Setup 2                        |

----->

| Address |    |    | Parameter      |
|---------|----|----|----------------|
| 3n      | 0B | 00 | note number 13 |
| 3n      | 0C | 00 | note number 14 |
|         | :  |    | :              |
| 3n      | 5B | 00 | note number 91 |

n: Drum setup number (0, 1)

<Table 1-2>

MIDI Parameter Change table (SYSTEM) [XG]

| Address (H) | Size (H) | Data (H)  | Parameter           | Description (H)   | Default value       |
|-------------|----------|-----------|---------------------|---|---------------------|
| 00 00 00    | 4        | 0000-07FF | MASTER TUNE         | -102.4 - +102.3 [cent]<br>1st bit3-0→bit15-12<br>2nd bit3-0→bit11-8<br>3rd bit3-0→bit7-4<br>4th bit3-0→bit3-0 | 00 04 00 00<br>-400 |
|             | 04       | 1 00 - 7F | MASTER VOLUME       | 0 - 127   | 7F                  |
|             | 05       | 1 00 - 7F | not used            |   |                     |
|             | 06       | 1 28 - 58 | TRANSPOSE           | -24 - +24 [semitones]   | 40                  |
|             | 7D       | n         | DRUM SETUP RESET    | n=Drum setup number   |                     |
|             | 7E       | 00        | XG SYSTEM ON        | 00=XG system ON (receive only)  |                     |
|             | 7F       | 00        | ALL PARAMETER RESET | 00=ON (receive only)  |                     |
| TOTAL SIZE  |          | 07        |                     |   |                     |

<Table 1-3>

MIDI Parameter Change table (EFFECT 1) [XG]

| Address (H) | Size (H) | Data (H) | Parameter           | Description                     | Default value (H)      |
|-------------|----------|----------|---------------------|---------------------------------|------------------------|
| 02 01 00    | 2        | 00-7F    | REVERB TYPE MSB     | see Effect Type List            | 01(=HALL1)             |
|             |          | 00-7F    | REVERB TYPE LSB     | 00 : basic type                 | 00                     |
|             | 02       | 1 00-7F  | REVERB PARAMETER 1  | see Effect Parameter List       | Depends on reverb type |
|             | 03       | 1 00-7F  | REVERB PARAMETER 2  | "                               | "                      |
|             | 04       | 1 00-7F  | REVERB PARAMETER 3  | "                               | "                      |
|             | 05       | 1 00-7F  | REVERB PARAMETER 4  | "                               | "                      |
|             | 06       | 1 00-7F  | REVERB PARAMETER 5  | "                               | "                      |
|             | 07       | 1 00-7F  | REVERB PARAMETER 6  | "                               | "                      |
|             | 08       | 1 00-7F  | REVERB PARAMETER 7  | "                               | "                      |
|             | 09       | 1 00-7F  | REVERB PARAMETER 8  | "                               | "                      |
|             | 0A       | 1 00-7F  | REVERB PARAMETER 9  | "                               | "                      |
|             | 0B       | 1 00-7F  | REVERB PARAMETER 10 | "                               | "                      |
|             | 0C       | 1 00-7F  | REVERB RETURN       | -∞dB...0dB...+6dB(0...64...127) | 40                     |
|             | 0D       | 1 01-7F  | REVERB PAN          | L63...C...R63(1...64...127)     | 40                     |

# MIDI Data Format

|            |    |          |                              |                                  |  |                           |
|------------|----|----------|------------------------------|----------------------------------|--|---------------------------|
| TOTAL SIZE | 0E |          |                              |                                  |  |                           |
| 02 01 10   | 1  | 00-7F    | REVERB PARAMETER 11          | see Effect Parameter List        |  | Depends on reverb type    |
|            | 11 | 00-7F    | REVERB PARAMETER 12          | "                                |  | "                         |
|            | 12 | 00-7F    | REVERB PARAMETER 13          | "                                |  | "                         |
|            | 13 | 00-7F    | REVERB PARAMETER 14          | "                                |  | "                         |
|            | 14 | 00-7F    | REVERB PARAMETER 15          | "                                |  | "                         |
|            | 15 | 00-7F    | REVERB PARAMETER 16          | "                                |  | "                         |
| TOTAL SIZE | 6  |          |                              |                                  |  |                           |
| 02 01 20   | 2  | 00-7F    | CHORUS TYPE MSB              | see Effect Type List             |  | 41 (=CHORUS1)             |
|            |    | 00-7F    | CHORUS TYPE LSB              | 00 : basic type                  |  | 00                        |
|            | 22 | 00-7F    | CHORUS PARAMETER 1           | see Effect Parameter List        |  | Depends on chorus Type    |
|            | 23 | 00-7F    | CHORUS PARAMETER 2           | "                                |  | "                         |
|            | 24 | 00-7F    | CHORUS PARAMETER 3           | "                                |  | "                         |
|            | 25 | 00-7F    | CHORUS PARAMETER 4           | "                                |  | "                         |
|            | 26 | 00-7F    | CHORUS PARAMETER 5           | "                                |  | "                         |
|            | 27 | 00-7F    | CHORUS PARAMETER 6           | "                                |  | "                         |
|            | 28 | 00-7F    | CHORUS PARAMETER 7           | "                                |  | "                         |
|            | 29 | 00-7F    | CHORUS PARAMETER 8           | "                                |  | "                         |
|            | 2A | 00-7F    | CHORUS PARAMETER 9           | "                                |  | "                         |
|            | 2B | 00-7F    | CHORUS PARAMETER 10          | "                                |  | "                         |
|            | 2C | 00-7F    | CHORUS RETURN                | -∞dB...0dB...+6dB(0...64...127)  |  | 40                        |
|            | 2D | 01-7F    | CHORUS PAN                   | L63...C...R63(1...64...127)      |  | 40                        |
|            | 2E | 00-7F    | SEND CHORUS TO REVERB        | -∞dB...0dB... +6dB(0...64...127) |  | 00                        |
| TOTAL SIZE | 0F |          |                              |                                  |  |                           |
| 02 01 30   | 1  | 00-7F    | CHORUS PARAMETER 11          | see Effect Parameter List        |  | Depends on chorus Type    |
|            | 31 | 00-7F    | CHORUS PARAMETER 12          | "                                |  | "                         |
|            | 32 | 00-7F    | CHORUS PARAMETER 13          | "                                |  | "                         |
|            | 33 | 00-7F    | CHORUS PARAMETER 14          | "                                |  | "                         |
|            | 34 | 00-7F    | CHORUS PARAMETER 15          | "                                |  | "                         |
|            | 35 | 00-7F    | CHORUS PARAMETER 16          | "                                |  | "                         |
| TOTAL SIZE | 6  |          |                              |                                  |  |                           |
| 02 01 40   | 2  | 00-7F    | VARIATION TYPE MSB           | see Effect Type List             |  | 05 (=DELAY L, C, R)       |
|            |    | 00-7F    | VARIATION TYPE LSB           | 00 : basic type                  |  | 00                        |
|            | 42 | 00-7F    | VARIATION PARAMETER 1 MSB    | see Effect Parameter List        |  | Depends on variation type |
|            |    | 00-7F    | VARIATION PARAMETER 1 LSB    | "                                |  | "                         |
|            | 44 | 00-7F    | VARIATION PARAMETER 2 MSB    | "                                |  | "                         |
|            |    | 00-7F    | VARIATION PARAMETER 2 LSB    | "                                |  | "                         |
|            | 46 | 00-7F    | VARIATION PARAMETER 3 MSB    | "                                |  | "                         |
|            |    | 00-7F    | VARIATION PARAMETER 3 LSB    | "                                |  | "                         |
|            | 48 | 00-7F    | VARIATION PARAMETER 4 MSB    | "                                |  | "                         |
|            |    | 00-7F    | VARIATION PARAMETER 4 LSB    | "                                |  | "                         |
|            | 4A | 00-7F    | VARIATION PARAMETER 5 MSB    | "                                |  | "                         |
|            |    | 00-7F    | VARIATION PARAMETER 5 LSB    | "                                |  | "                         |
|            | 4C | 00-7F    | VARIATION PARAMETER 6 MSB    | "                                |  | "                         |
|            |    | 00-7F    | VARIATION PARAMETER 6 LSB    | "                                |  | "                         |
|            | 4E | 00-7F    | VARIATION PARAMETER 7 MSB    | "                                |  | "                         |
|            |    | 00-7F    | VARIATION PARAMETER 7 LSB    | "                                |  | "                         |
|            | 50 | 00-7F    | VARIATION PARAMETER 8 MSB    | "                                |  | "                         |
|            |    | 00-7F    | VARIATION PARAMETER 8 LSB    | "                                |  | "                         |
|            | 52 | 00-7F    | VARIATION PARAMETER 9 MSB    | "                                |  | "                         |
|            |    | 00-7F    | VARIATION PARAMETER 9 LSB    | "                                |  | "                         |
|            | 54 | 00-7F    | VARIATION PARAMETER 10 MSB   | "                                |  | "                         |
|            |    | 00-7F    | VARIATION PARAMETER 10 LSB   | "                                |  | "                         |
|            | 56 | 00-7F    | VARIATION RETURN             | -∞ dB...0dB...+6dB(0...64...127) |  | 40                        |
|            | 57 | 01-7F    | VARIATION PAN                | L63...C...R63(1...64...127)      |  | 40                        |
|            | 58 | 00-7F    | SEND VARIATION TO REVERB     | -∞ dB...0dB...+6dB(0...64...127) |  | 00                        |
|            | 59 | 00-7F    | SEND VARIATION TO CHORUS     | -∞ dB...0dB...+6dB(0...64...127) |  | 00                        |
|            | 5A | 00-01    | VARIATION CONNECTION         | 0:INSERTION, 1:SYSTEM            |  | 00                        |
|            | 5B | 00-0F,7F | VARIATION PART               | Part1...16(0...15)<br>OFF (127)  |  | 7F                        |
|            | 5C | 00-7F    | MW VARIATION CONTROL DEPTH   | -64 - +63                        |  | 40                        |
|            | 5D | 00-7F    | BEND VARIATION CONTROL DEPTH | -64 - +63                        |  | 40                        |
|            | 5E | 00-7F    | CAT VARIATION CONTROL DEPTH  | -64 - +63                        |  | 40                        |
|            | 5F | 00-7F    | AC1 VARIATION CONTROL DEPTH  | -64 - +63                        |  | 40                        |
|            | 60 | 00-7F    | AC2 VARIATION CONTROL DEPTH  | -64 - +63                        |  | 40                        |
| TOTAL SIZE | 21 |          |                              |                                  |  |                           |
| 02 01 70   | 1  | 00-7F    | VARIATION PARAMETER 11       | see Effect Parameter List        |  | Depends on variation type |
|            | 71 | 00-7F    | VARIATION PARAMETER 12       | "                                |  | "                         |
|            | 72 | 00-7F    | VARIATION PARAMETER 13       | "                                |  | "                         |
|            | 73 | 00-7F    | VARIATION PARAMETER 14       | "                                |  | "                         |
|            | 74 | 00-7F    | VARIATION PARAMETER 15       | "                                |  | "                         |
|            | 75 | 00-7F    | VARIATION PARAMETER 16       | "                                |  | "                         |
| TOTAL SIZE | 6  |          |                              |                                  |  |                           |

&lt;Table 1-4&gt;

MIDI Parameter Change table (MULTI PART) [XG]

| Address (H) | Size (H) | Data (H)    | Parameter                      | Description                                 | Default value (H)                     |
|-------------|----------|-------------|--------------------------------|---|---------------------------------------|
| 08 nn 00    | 1        | 00 - 20     | ELEMENT RESERVE                | 0 - 32                                      | part10=0, other=2                     |
| nn 01       | 1        | 00 - 7F     | BANK SELECT MSB                | 0 - 127                                     | part10=7F, other=0                    |
| nn 02       | 1        | 00 - 7F     | BANK SELECT LSB                | 0 - 127                                     | 00                                    |
| nn 03       | 1        | 00 - 7F     | PROGRAM NUMBER                 | 1 - 128                                     | 00                                    |
| nn 04       | 1        | 00 - 0F, 7F | Rcv CHANNEL                    | 1 - 16, OFF                                 | part no.                              |
| nn 05       | 1        | 00 - 01     | MONO/POLY MODE                 | 0: MONO<br>1: POLY                          | 01                                    |
| nn 06       | 1        | 00 - 02     | SAME NOTE NUMBER KEY ON ASSIGN | 0: SINGLE<br>1: MULTI<br>2: INST (for DRUM) | 1 (all part)<br>part10=2, other=0     |
| nn 07       | 1        | 00 - 03     | PART MODE                      | 0: NORMAL<br>1: DRUM<br>2-3: DRUMS1 - 2     | 00 (other than Part10)<br>02 (Part10) |
| nn 08       | 1        | 28 - 58     | NOTE SHIFT                     | -24 - +24 [semitones]                       | 40                                    |
| nn 09       | 2        | 00 - FF     | DETUNE                         | -12.8 - +12.7 [Hz]                          | 08 00                                 |
| nn 0A       |          |             |                                | 1st bit3-0→bit7-4<br>2nd bit3-0→bit3-0      | (80)                                  |
| nn 0B       | 1        | 00 - 7F     | VOLUME                         | 0 - 127                                     | 64                                    |
| nn 0C       | 1        | 00 - 7F     | VELOCITY SENSE DEPTH           | 0 - 127                                     | 40                                    |
| nn 0D       | 1        | 00 - 7F     | VELOCITY SENSE OFFSET          | 0 - 127                                     | 40                                    |
| nn 0E       | 1        | 00 - 7F     | PAN                            | 0/random, 1/L63-64/C-127/R63                | 40                                    |
| nn 0F       | 1        | 00 - 7F     | NOTE LIMIT LOW                 | C-2 - G8                                    | 00                                    |
| nn 10       | 1        | 00 - 7F     | NOTE LIMIT HIGH                | C-2 - G8                                    | 7F                                    |
| nn 11       | 1        | 00 - 7F     | DRY LEVEL                      | 0 - 127                                     | 7F                                    |
| nn 12       | 1        | 00 - 7F     | CHORUS SEND                    | 0 - 127                                     | 00                                    |
| nn 13       | 1        | 00 - 7F     | REVERB SEND                    | 0 - 127                                     | 40                                    |
| nn 14       | 1        | 00 - 7F     | VARIATION SEND                 | 0 - 127                                     | 00                                    |
| nn 15       | 1        | 00 - 7F     | VIBRATO RATE                   | -64 - +63                                   | 40                                    |
| nn 16       | 1        | 00 - 7F     | VIBRATO DEPTH                  | -64 - +63                                   | 40 (drum part ignores)                |
| nn 17       | 1        | 00 - 7F     | VIBRATO DELAY                  | -64 - +63                                   | 40 (drum part ignores)                |
| nn 18       | 1        | 00 - 7F     | FILTER CUTOFF FREQUENCY        | -64 - +63                                   | 40                                    |
| nn 19       | 1        | 00 - 7F     | FILTER RESONANCE               | -64 - +63                                   | 40                                    |
| nn 1A       | 1        | 00 - 7F     | EG ATTACK TIME                 | -64 - +63                                   | 40                                    |
| nn 1B       | 1        | 00 - 7F     | EG DECAY TIME                  | -64 - +63                                   | 40                                    |
| nn 1C       | 1        | 00 - 7F     | EG RELEASE TIME                | -61 - +63                                   | 40                                    |
| nn 1D       | 1        | 28 - 58     | MW PITCH CONTROL               | -24 - +24 [semitones]                       | 40                                    |
| nn 1E       | 1        | 00 - 7F     | MW FILTER CONTROL              | -9600 - +9450 [cent]                        | 40                                    |
| nn 1F       | 1        | 00 - 7F     | MW AMPLITUDE CONTROL           | -64 - +63                                   | 40                                    |
| nn 20       | 1        | 00 - 7F     | MW LFO PMOD DEPTH              | 0 - 127                                     | 0A                                    |
| nn 21       | 1        | 00 - 7F     | MW LFO FMOD DEPTH              | 0 - 127                                     | 00                                    |
| nn 22       | 1        | 00 - 7F     | MW LFO AMOD DEPTH              | 0 - 127                                     | 00                                    |
| nn 23       | 1        | 28 - 58     | BEND PITCH CONTROL             | -24 - +24 [semitones]                       | 42                                    |
| nn 24       | 1        | 00 - 7F     | BEND FILTER CONTROL            | -9600 - +9450 [cent]                        | 40                                    |
| nn 25       | 1        | 00 - 7F     | BEND AMPLITUDE CONTROL         | -64 - +63                                   | 40                                    |
| nn 26       | 1        | 00 - 7F     | BEND LFO PMOD DEPTH            | +100 - +100 [%]                             | 40                                    |
| nn 27       | 1        | 00 - 7F     | BEND LFO FMOD DEPTH            | +100 - +100 [%]                             | 40                                    |
| nn 28       | 1        | 00 - 7F     | BEND LFO AMOD DEPTH            | +100 - +100 [%]                             | 40                                    |
| TOTAL SIZE  | 29       |             |                                |   |                                       |
| nn 30       | 1        | 00 - 01     | Rcv PITCH BEND                 | 0/OFF, 1/ON                                 | 01                                    |
| nn 31       | 1        | 00 - 01     | Rcv CH AFTER TOUCH (CAT)       | 0/OFF, 1/ON                                 | 01                                    |
| nn 32       | 1        | 00 - 01     | Rcv PROGRAM CHANGE             | 0/OFF, 1/ON                                 | 01                                    |
| nn 33       | 1        | 00 - 01     | Rcv CONTROL CHANGE             | 0/OFF, 1/ON                                 | 01                                    |
| nn 34       | 1        | 00 - 01     | Rcv POLY AFTER TOUCH (PAT)     | 0/OFF, 1/ON                                 | 01                                    |
| nn 35       | 1        | 00 - 01     | Rcv NOTE MESSAGE               | 0/OFF, 1/ON                                 | 01                                    |
| nn 36       | 1        | 00 - 01     | Rcv RPN                        | 0/OFF, 1/ON                                 | 01                                    |
| nn 37       | 1        | 00 - 01     | Rcv NRPN                       | 0/OFF, 1/ON                                 | XG=01, GM=00                          |
| nn 38       | 1        | 00 - 01     | Rcv MODULATION                 | 0/OFF, 1/ON                                 | 01                                    |
| nn 39       | 1        | 00 - 01     | Rcv VOLUME                     | 0/OFF, 1/ON                                 | 01                                    |
| nn 3A       | 1        | 00 - 01     | Rcv PAN                        | 0/OFF, 1/ON                                 | 01                                    |
| nn 3B       | 1        | 00 - 01     | Rcv EXPRESSION                 | 0/OFF, 1/ON                                 | 01                                    |
| nn 3C       | 1        | 00 - 01     | Rcv HOLD1                      | 0/OFF, 1/ON                                 | 01                                    |
| nn 3D       | 1        | 00 - 01     | Rcv PORTAMENTO                 | 0/OFF, 1/ON                                 | 01                                    |
| nn 3E       | 1        | 00 - 01     | Rcv SOSTENUTO                  | 0/OFF, 1/ON                                 | 01                                    |
| nn 3F       | 1        | 00 - 01     | Rcv SOFT PEDAL                 | 0/OFF, 1/ON                                 | 01                                    |
| nn 40       | 1        | 00 - 01     | Rcv BANK SELECT                | 0/OFF, 1/ON                                 | XG=01, GM=00                          |
| nn 41       | 1        | 00 - 7F     | SCALE TUNING C                 | -64 - +63 [cent]                            | 40                                    |

## MIDI Data Format

|            |    |   |         |                        |                       |    |
|------------|----|---|---------|------------------------|-----------------------|----|
| nn         | 42 | 1 | 00 - 7F | SCALE TUNING C#        | -64 - +63 [cent]      | 40 |
| nn         | 43 | 1 | 00 - 7F | SCALE TUNING D         | -64 - +63 [cent]      | 40 |
| nn         | 44 | 1 | 00 - 7F | SCALE TUNING D#        | -64 - +63 [cent]      | 40 |
| nn         | 45 | 1 | 00 - 7F | SCALE TUNING E         | -64 - +63 [cent]      | 40 |
| nn         | 46 | 1 | 00 - 7F | SCALE TUNING F         | -64 - +63 [cent]      | 40 |
| nn         | 47 | 1 | 00 - 7F | SCALE TUNING F#        | -64 - +63 [cent]      | 40 |
| nn         | 48 | 1 | 00 - 7F | SCALE TUNING G         | -64 - +63 [cent]      | 40 |
| nn         | 49 | 1 | 00 - 7F | SCALE TUNING G#        | -64 - +63 [cent]      | 40 |
| nn         | 4A | 1 | 00 - 7F | SCALE TUNING A         | -64 - +63 [cent]      | 40 |
| nn         | 4B | 1 | 00 - 7F | SCALE TUNING A#        | -64 - +63 [cent]      | 40 |
| nn         | 4C | 1 | 00 - 7F | SCALE TUNING B         | -64 - +63 [cent]      | 40 |
|            |    |   |         |                        |                       |    |
| nn         | 4D | 1 | 28 - 58 | CAT PITCH CONTROL      | -24 - +24 [semitones] | 40 |
| nn         | 4E | 1 | 00 - 7F | CAT FILTER CONTROL     | -9600 - +9450 [cent]  | 40 |
| nn         | 4F | 1 | 00 - 7F | CAT AMPLITUDE CONTROL  | -64 - +63             | 40 |
| nn         | 50 | 1 | 00 - 7F | CAT LFO PMOD DEPTH     | 0 - 127               | 00 |
| nn         | 51 | 1 | 00 - 7F | CAT LFO FMOD DEPTH     | 0 - 127               | 00 |
| nn         | 52 | 1 | 00 - 7F | CAT LFO AMOD DEPTH     | 0 - 127               | 00 |
|            |    |   |         |                        |                       |    |
| nn         | 53 | 1 | 28 - 58 | PAT PITCH CONTROL      | -24 - +24 [semitones] | 40 |
| nn         | 54 | 1 | 00 - 7F | PAT FILTER CONTROL     | -9600 - +9450 [cent]  | 40 |
| nn         | 55 | 1 | 00 - 7F | PAT AMPLITUDE CONTROL  | -64 - +63             | 40 |
| nn         | 56 | 1 | 00 - 7F | PAT LFO PMOD DEPTH     | 0 - 127               | 00 |
| nn         | 57 | 1 | 00 - 7F | PAT LFO FMOD DEPTH     | 0 - 127               | 00 |
| nn         | 58 | 1 | 00 - 7F | PAT LFO AMOD DEPTH     | 0 - 127               | 00 |
|            |    |   |         |                        |                       |    |
| nn         | 59 | 1 | 00 - 5F | AC1 CONTROLLER NUMBER  | 0 - 95                | 10 |
| nn         | 5A | 1 | 28 - 58 | AC1 PITCH CONTROL      | -24 - +24 [semitones] | 40 |
| nn         | 5B | 1 | 00 - 7F | AC1 FILTER CONTROL     | -9600 - +9450 [cent]  | 40 |
| nn         | 5C | 1 | 00 - 7F | AC1 AMPLITUDE CONTROL  | -64 - +63             | 40 |
| nn         | 5D | 1 | 00 - 7F | AC1 LFO PMOD DEPTH     | 0 - 127               | 00 |
| nn         | 5E | 1 | 00 - 7F | AC1 LFO FMOD DEPTH     | 0 - 127               | 00 |
| nn         | 5F | 1 | 00 - 7F | AC1 LFO AMOD DEPTH     | 0 - 127               | 00 |
|            |    |   |         |                        |                       |    |
| nn         | 60 | 1 | 00 - 5F | AC2 CONTROLLER NUMBER  | 0 - 95                | 11 |
| nn         | 61 | 1 | 28 - 58 | AC2 PITCH CONTROL      | -24 - +24 [semitones] | 40 |
| nn         | 62 | 1 | 00 - 7F | AC2 FILTER CONTROL     | -9600 - +9450 [cent]  | 40 |
| nn         | 63 | 1 | 00 - 7F | AC2 AMPLITUDE CONTROL  | -64 - +63             | 40 |
| nn         | 64 | 1 | 00 - 7F | AC2 LFO PMOD DEPTH     | 0 - 127               | 00 |
| nn         | 65 | 1 | 00 - 7F | AC2 LFO FMOD DEPTH     | 0 - 127               | 00 |
| nn         | 66 | 1 | 00 - 7F | AC2 LFO AMOD DEPTH     | 0 - 127               | 00 |
|            |    |   |         |                        |                       |    |
| nn         | 67 | 1 | 00 - 01 | PORTAMENTO SWITCH      | 0/OFF, 1/ON           | 00 |
| nn         | 68 | 1 | 00 - 7F | PORTAMENTO TIME        | 0 - 127               | 00 |
|            |    |   |         |                        |                       |    |
| nn         | 69 | 1 | 00 - 7F | PITCH EG INITIAL LEVEL | -64 - +63             | 40 |
| nn         | 6A | 1 | 00 - 7F | PITCH EG ATTACK TIME   | -64 - +63             | 40 |
| nn         | 6B | 1 | 00 - 7F | PITCH EG RELEASE LEVEL | -64 - +63             | 40 |
| nn         | 6C | 1 | 00 - 7F | PITCH EG RELEASE TIME  | -64 - +63             | 40 |
| nn         | 6D | 1 | 01 - 7F | VELOCITY LIMIT LOW     | 1 - 127               | 01 |
| nn         | 6E | 1 | 01 - 7F | VELOCITY LIMIT HIGH    | 1 - 127               | 7F |
| TOTAL SIZE |    |   | 3F      |                        |                       |    |

nn = Part Number (0:1Part, 1:2Part, 2:3Part, ..., 15:16Part)

For the DRUM PART, the following parameters have no effect.

- SOFT PEDAL
- BANK SELECT LSB
- MONO/POLY
- SCALE TUNING
- PORTAMENTO
- PITCH EG INITIAL LEVEL
- PITCH EG ATTACK TIME
- PITCH EG RELEASE LEVEL
- PITCH EF RELEASE TIME
- POLY AFTER TOUCH

### <Table 1-5>

MIDI Parameter Change table (DRUM SETUP) [XG]

| Address (H) | Size (H) | Data (H) | Parameter | Description     | Default (H)                      |
|-------------|----------|----------|-----------|-----------------|----------------------------------|
| 3n rr       | 00       | 1        | 00 - 7F   | PITCH COARSE    | -64 - +63                        |
| 3n rr       | 01       | 1        | 00 - 7F   | PITCH FINE      | -64 - +63 [cent]                 |
| 3n rr       | 02       | 1        | 00 - 7F   | LEVEL           | 0 - 127                          |
| 3n rr       | 03       | 1        | 00 - 7F   | ALTERNATE GROUP | 0/OFF, 1 - 127                   |
| 3n rr       | 04       | 1        | 00 - 7F   | PAN             | 0/random, 1/L63 - 64/C - 127/R63 |
| 3n rr       | 05       | 1        | 00 - 7F   | REVERB SEND     | 0 - 127                          |
| 3n rr       | 06       | 1        | 00 - 7F   | CHORUS SEND     | 0 - 127                          |
| 3n rr       | 07       | 1        | 00 - 7F   | VARIATION SEND  | 0 - 127                          |

|            |    |    |    |         |                         |                   |                     |
|------------|----|----|----|---------|-------------------------|-------------------|---------------------|
| 3n         | rr | 08 | 1  | 00 - 01 | KEY ASSIGN              | 0/SINGLE, 1/MULTI | 00                  |
| 3n         | rr | 09 | 1  | 00 - 01 | Rcv NOTE OFF            | 0/OFF, 1/ON       | Depends on the note |
| 3n         | rr | 0A | 1  | 00 - 01 | Rcv NOTE ON             | 0/OFF, 1/ON       | 01                  |
| 3n         | rr | 0B | 1  | 00 - 7F | FILTER CUTOFF FREQUENCY | -64 - +63         | 40                  |
| 3n         | rr | 0C | 1  | 00 - 7F | FILTER RESONANCE        | -64 - +63         | 40                  |
| 3n         | rr | 0D | 1  | 00 - 7F | EG ATTACK RATE          | -64 - +63         | 40                  |
| 3n         | rr | 0E | 1  | 00 - 7F | EG DECAY1 RATE          | -64 - +63         | 40                  |
| 3n         | rr | 0F | 1  | 00 - 7F | EG DECAY2 RATE          | -64 - +63         | 40                  |
| TOTAL SIZE |    |    | 10 |         |                         |                   |                     |

[Note]

n: Drum number (0 - 1)

rr: note number (0D - 5B)

When XG system on or GM mode on messages are received, all Drum Setup parameters are initialized.

The Drum Setup Reset message can be used to initialize each Drum Setup parameter.

Selecting a Drum Set will cause the Drum Setup parameter values to be initialized.

<Table 2-1>

Parameter Bass Address

Model ID = 4B [QS300]

| Bulk Dump |     |     |     | Description          |
|-----------|-----|-----|-----|----------------------|
| Address   |     |     | (H) |                      |
|           | (H) | (M) |     | (L)                  |
| USER      | 11  | 00  | 00  | User Normal Voice 1  |
| NORMAL    |     |     |     | :                    |
| VOICE     | 00  | 1F  | 00  | User Normal Voice 32 |

<Table 2-2>

MIDI Bulk Dump table (USER NORMAL VOICE) [QS300]

| Address (H) | Size (H) | Data (H) | Parameter | Description | Default (H)                    |  |
|-------------|----------|----------|-----------|-------------|--------------------------------|--|
| 11          | nn       | 00       | 17D       | 20-7E       | Voice Name                     | [Common]   |
|             |          | :        |           |             |                                |  |
|             |          | 07       |           |             |                                |  |
|             |          | 08       |           |             | not used                       |  |
|             |          | :        |           |             | "                              |  |
|             |          | 0A       |           |             | "                              |  |
|             |          | 0B       |           | 01-03       | Element Switch                 | 1:Element 1 on, 2:Element 2 on, 3:Element 1 and 2 on |
|             |          | 0C       |           | 00-7F       | Voice Level                    |  |
|             |          | 0D       |           |             | not used                       |  |
|             |          | :        |           |             | "                              |  |
|             |          | 3C       |           |             | "                              |  |
|             |          | 3D       |           | 00-7F       | Wave Number High               | [Element 1]<br>bit13-bit7                            |
|             |          | 3E       |           | 00-7F       | Wave Number Low                | bit6-bit0  |
|             |          | 3F       |           | 00-7F       | Note Limit Low                 |  |
|             |          | 40       |           | 00-7F       | Note Limit High                |  |
|             |          | 41       |           | 00-7F       | Velocity Limit Low             |  |
|             |          | 42       |           | 00-7F       | Velocity Limit High            |  |
|             |          | 43       |           | 00-01       | Filter EG Velocity Curve       |  |
|             |          | 44       |           | 00-02       | LFO Wave Select                | 0:saw, 1:tri, 2:S&H                                  |
|             |          | 45       |           | 00-01       | LFO Phase Initialize           | 0:OFF, 1:ON  |
|             |          | 46       |           | 00-3F       | LFO Speed                      |  |
|             |          | 47       |           | 00-7F       | LFO Delay                      |  |
|             |          | 48       |           | 00-7F       | LFO Fade Time                  |  |
|             |          | 49       |           | 00-3F       | LFO PMD Depth                  |  |
|             |          | 4A       |           | 00-0F       | LFO CMD Depth                  |  |
|             |          | 4B       |           | 00-1F       | LFO AMD Depth                  |  |
|             |          | 4C       |           | 20-60       | Note Shift                     |  |
|             |          | 4D       |           | 0E -72      | Detune                         |  |
|             |          | 4E       |           | 00-05       | Pitch Scaling                  | 0:100%, 1:50%, 2:20%, 3:10%, 4:5%, 5:0%              |
|             |          | 4F       |           | 00-7F       | Pitch Scaling Center Note      |  |
|             |          | 50       |           | 00-03       | Pitch EG Depth                 | 0:1/2oct, 1:1oct, 2:2oct, 3:4oct                     |
|             |          | 51       |           | 39-47       | Velocity PEG Level Sensitivity |  |
|             |          | 52       |           | 39-47       | Velocity PEG Rate Sensitivity  |  |
|             |          | 53       |           | 39-47       | PEG Rate Scaling               |  |
|             |          | 54       |           | 00-7F       | PEG Rate Scaling Center Note   |  |
|             |          | 55       |           | 00-3F       | PEG Rate 1                     |  |
|             |          | 56       |           | 00-3F       | PEG Rate 2                     |  |
|             |          | 57       |           | 00-3F       | PEG Rate 3                     |  |

## MIDI Data Format

|            |       |                                |                                 |
|------------|-------|--------------------------------|---------------------------------|
| 58         | 00-3F | PEG Rate 4                     |                                 |
| 59         | 00-7F | PEG Level 0                    |                                 |
| 5A         | 00-7F | PEG Level 1                    |                                 |
| 5B         | 00-7F | PEG Level 2                    |                                 |
| 5C         | 00-7F | PEG Level 3                    |                                 |
| 5D         | 00-7F | PEG Level 4                    |                                 |
| 5E         | 00-3F | Filter Resonance               |                                 |
| 5F         | 00-07 | Velocity Sensitivity           |                                 |
| 60         | 00-7F | Cutoff Frequency               |                                 |
| 61         | 00-7F | Cutoff Scaling Break Point 1   |                                 |
| 62         | 00-7F | Cutoff Scaling Break Point 2   |                                 |
| 63         | 00-7F | Cutoff Scaling Break Point 3   |                                 |
| 64         | 00-7F | Cutoff Scaling Break Point 4   |                                 |
| 65         | 00-7F | Cutoff Scaling Offset 1        |                                 |
| 66         | 00-7F | Cutoff Scaling Offset 2        |                                 |
| 67         | 00-7F | Cutoff Scaling Offset 3        |                                 |
| 68         | 00-7F | Cutoff Scaling Offset 4        |                                 |
| 69         | 39-47 | Velocity FEG Level Sensitivity |                                 |
| 6A         | 39-47 | Velocity FEG Rate Sensitivity  |                                 |
| 6B         | 39-47 | FEG Rate Scaling               |                                 |
| 6C         | 00-7F | FEG Rate Scaling Center Note   |                                 |
| 6D         | 00-3F | FEG Rate 1                     |                                 |
| 6E         | 00-3F | FEG Rate 2                     |                                 |
| 6F         | 00-3F | FEG Rate 3                     |                                 |
| 70         | 00-3F | FEG Rate 4                     |                                 |
| 71         | 00-7F | FEG Level 0                    |                                 |
| 72         | 00-7F | FEG Level 1                    |                                 |
| 73         | 00-7F | FEG Level 2                    |                                 |
| 74         | 00-7F | FEG Level 3                    |                                 |
| 75         | 00-7F | FEG Level 4                    |                                 |
| 76         | 00-7F | Element Level                  |                                 |
| 77         | 00-7F | Level Scaling Break Point 1    |                                 |
| 78         | 00-7F | Level Scaling Break Point 2    |                                 |
| 79         | 00-7F | Level Scaling Break Point 3    |                                 |
| 7A         | 00-7F | Level Scaling Break Point 4    |                                 |
| 7B         | 00-7F | Level Scaling Offset 1         |                                 |
| 7C         | 00-7F | Level Scaling Offset 2         |                                 |
| 7D         | 00-7F | Level Scaling Offset 3         |                                 |
| 7E         | 00-7F | Level Scaling Offset 4         |                                 |
| 7F         | 00-06 | Velocity Curve                 |                                 |
| 80         | 00-0F | Pan                            | 0 (Left)-14 (Right), 15:Scaling |
| 81         | 39-47 | AEG Rate Scaling               |                                 |
| 82         | 00-7F | AEG Scaling Center Note        |                                 |
| 83         | 00-0F | AEG Key on Delay               |                                 |
| 84         | 00-7F | AEG Attack Rate                |                                 |
| 85         | 00-7F | AEG Decay 1 Rate               |                                 |
| 86         | 00-7F | AEG Decay 2 Rate               |                                 |
| 87         | 00-7F | AEG Release Rate               |                                 |
| 88         | 00-7F | AEG Decay 1 Level              |                                 |
| 89         | 00-7F | AEG Decay 2 Level              |                                 |
| 8A         | 00-7F | Address Offset High            | bit13-bit7                      |
| 8B         | 00-7F | Address Offset Low             | bit6-bit0                       |
| 8C         | 39-47 | Resonance Sensitivity          |                                 |
| 8D         |       |                                | [Element 2]                     |
| :          |       |                                | same as [Element 1]             |
| DC         |       |                                | ”                               |
|            |       |                                | ”                               |
| DD         |       |                                | [Element 3]                     |
| :          |       |                                | not used                        |
| 12C        |       |                                | ”                               |
| 12D        |       |                                | ”                               |
| :          |       |                                | [Element 4]                     |
| 17C        |       |                                | not used                        |
| :          |       |                                | ”                               |
| TOTAL SIZE | 17D   |                                | ”                               |

nn=Voice Number (00-1F)

# XG Normal Voice List

## Bank Select MSB = 000, LSB = Bank Number

Voice names in bold typeface are voices that can be selected in the Disklavier.

The Disklavier can produce all the voices listed below, but can only display bank 0 voices.

| Instrument Group | Program #  | Bank #   | Voice Name      | Element        | Instrument Group | Program #       | Bank #          | Voice Name      | Element         | Instrument Group | Program #        | Bank #          | Voice Name      | Element         | Instrument Group | Program #       | Bank #          | Voice Name      | Element |
|------------------|------------|----------|-----------------|----------------|------------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|-----------------|-----------------|-----------------|------------------|-----------------|-----------------|-----------------|---------|
| Piano            | 1          | 0        | <b>GrandPno</b> | 1              | Organ            | 17              | 0               | <b>DrawOrgn</b> | 1               | Bass             | 33               | 0               | <b>Aco.Bass</b> | 1               | Ensemble         | 49              | 0               | <b>Strings1</b> | 1       |
|                  | 1          | 1        | GrndPnoK        | 1              |                  | 32              | DetDrwOr        | 2               | 40              |                  | JazzRthm         | 2               | 3               | S.Strngs        |                  | 2               |                 |                 |         |
|                  | 18         | MelloGrP | 1               | 33             |                  | 60sDrOr1        | 2               | 45              | VXUprgth        |                  | 2                | 8               | SlowStr         | 1               |                  |                 |                 |                 |         |
|                  | 40         | PianoStr | 2               | 34             |                  | 60sDrOr2        | 2               | 34              | 0               |                  | <b>FngrrBass</b> | 1               | 24              | ArcoStr         |                  | 2               |                 |                 |         |
|                  | 41         | Dream    | 2               | 35             |                  | 70sDrOr1        | 2               | 18              | FngrrDrk        |                  | 2                | 35              | 60sStrng        | 2               |                  |                 |                 |                 |         |
|                  | 2          | 0        | <b>BritePno</b> | 1              |                  | 36              | DrawOrg2        | 2               | 27              |                  | FlangeBa         | 2               | 40              | Orchestr        |                  | 2               |                 |                 |         |
|                  | 1          | 1        | BritPnoK        | 1              |                  | 37              | 60sDrOr3        | 2               | 40              |                  | Ba&DstEG         | 2               | 41              | Orchstr2        |                  | 2               |                 |                 |         |
|                  | 3          | 0        | <b>E.Grand</b>  | 2              |                  | 38              | EvenBar         | 2               | 43              |                  | FngrrSlap        | 2               | 42              | TremOrch        |                  | 2               |                 |                 |         |
|                  | 1          | 1        | ElGrPnoK        | 2              |                  | 40              | 16+2"2/3        | 2               | 45              |                  | FngBass2         | 2               | 45              | VeloStr         |                  | 2               |                 |                 |         |
|                  | 32         | Det.CP80 | 2               | 64             |                  | Organ Ba        | 1               | 65              | ModAlem         |                  | 2                | 50              | 0               | <b>Strings2</b> |                  | 1               |                 |                 |         |
|                  | 40         | ElGrPno1 | 2               | 65             |                  | 70sDrOr2        | 2               | 35              | 0               |                  | <b>PickBass</b>  | 1               | 3               | S.SlwStr        |                  | 2               |                 |                 |         |
|                  | 41         | ElGrPno2 | 2               | 66             |                  | CheezOrg        | 2               | 28              | MutePkBa        |                  | 1                | 8               | LegatoSt        | 2               |                  |                 |                 |                 |         |
|                  | 4          | 0        | <b>HnkyTonk</b> | 2              |                  | 67              | DrawOrg3        | 2               | 36              |                  | 0                | <b>Fretless</b> | 1               | 40              |                  | Warm Str        | 2               |                 |         |
|                  | 1          | 1        | HnkyTnkK        | 2              |                  | 18              | 0               | <b>PercOrgn</b> | 1               |                  | 32               | Fretles2        | 2               | 41              |                  | Kingdom         | 2               |                 |         |
|                  | 5          | 0        | <b>E.Piano1</b> | 2              |                  | 24              | 70sPcOr1        | 2               | 33              |                  | Fretles3         | 2               | 64              | 70s Str         |                  | 1               |                 |                 |         |
|                  | 1          | 1        | El.Pno 1K       | 1              |                  | 32              | DetPrcOr        | 2               | 34              |                  | Fretles4         | 2               | 65              | Str Ens3        |                  | 1               |                 |                 |         |
|                  | 18         | MelloEP1 | 2               | 33             |                  | LiteOrg         | 2               | 37              | 96              |                  | SynFretl         | 2               | 51              | 0               |                  | <b>Syn.Str1</b> | 2               |                 |         |
|                  | 32         | Chor.EP1 | 2               | 37             |                  | PercOrg2        | 2               | 97              | Smooth          | 2                | 27               | 27              | ResoStr         | 2               |                  |                 |                 |                 |         |
|                  | 40         | HardEL.P | 2               | 19             |                  | 0               | <b>RockOrgn</b> | 2               | 37              | 0                | <b>SlapBas1</b>  | 1               | 64              | 64              |                  | Syn Str4        | 2               |                 |         |
|                  | 45         | VX EL.P1 | 2               | 64             |                  | RotaryOr        | 2               | 27              | 27              | ResoSlap         | 1                | 65              | 65              | SS Str          |                  | 2               |                 |                 |         |
|                  | 64         | 60sEL.P  | 1               | 65             |                  | SloRotar        | 2               | 32              | 32              | PunchThm         | 2                | 52              | 0               | <b>Syn.Str2</b> |                  | 2               |                 |                 |         |
|                  | 6          | 0        | <b>E.Piano2</b> | 2              |                  | 66              | FstRotar        | 2               | 38              | 0                | <b>SlapBas2</b>  | 1               | 53              | 0               |                  | ChoirAah        | 1               |                 |         |
|                  | 1          | 1        | El.Pno2K        | 1              |                  | 20              | 0               | <b>ChrchOrg</b> | 2               | 43               | VeloSlap         | 2               | 3               | 3               |                  | S.Choir         | 2               |                 |         |
|                  | 32         | Chor.EP2 | 2               | 32             |                  | ChurOrg3        | 2               | 32              | ChurOrg3        | 2                | 39               | 0               | <b>SynBass1</b> | 1               |                  | 16              | 16              | Ch.Aahs2        | 2       |
|                  | 33         | DX Hard  | 2               | 35             |                  | ChurOrg2        | 2               | 35              | ChurOrg2        | 2                | 18               | 18              | SynBa1Dk        | 1               |                  | 32              | 32              | MelChoir        | 2       |
|                  | 34         | DXLegend | 2               | 40             |                  | NotreDam        | 2               | 40              | NotreDam        | 2                | 20               | 20              | FastResB        | 1               |                  | 40              | 40              | ChoirStr        | 2       |
|                  | 40         | DX Phase | 2               | 64             |                  | OrgFlute        | 2               | 64              | OrgFlute        | 2                | 24               | 24              | AcidBass        | 1               |                  | 54              | 0               | <b>VoiceOoh</b> | 1       |
|                  | 41         | DX+Analg | 2               | 65             | TrmOrgFl         | 2               | 21              | 0               | <b>ReedOrgn</b> | 1                | 35               | 35              | Clv Bass        | 2               |                  | 55              | 0               | <b>SynVoice</b> | 1       |
|                  | 42         | DXKotoEP | 2               | 21             | 0                | <b>ReedOrgn</b> | 1               | 40              | 40              | TeknoBa          | 2                | 40              | 40              | SynVox2         |                  | 2               |                 |                 |         |
|                  | 45         | VX EL.P2 | 2               | 40             | Puff Org         | 2               | 40              | Puff Org        | 2               | 64               | 64               | Oscar           | 2               | 41              |                  | 41              | Choral          | 2               |         |
|                  | 7          | 0        | <b>Harpsi.</b>  | 1              | 22               | 0               | <b>Acordion</b> | 2               | 65              | 65               | SqrBass          | 1               | 64              | 64              |                  | AnaVoice        | 1               |                 |         |
|                  | 1          | 1        | Harpsi.K        | 1              | 32               | 32              | AccordIt        | 2               | 66              | 66               | RubberBa         | 2               | 56              | 0               |                  | <b>Orch.Hit</b> | 2               |                 |         |
|                  | 25         | Harpsi.2 | 2               | 23             | 0                | <b>Harmnica</b> | 1               | 96              | 96              | Hammer           | 2                | 35              | 35              | OrchHit2        |                  | 2               |                 |                 |         |
|                  | 35         | Harpsi.3 | 2               | 32             | 32               | Harmo 2         | 2               | 24              | 24              | 0                | <b>TangoAcd</b>  | 2               | 64              | 64              | Impact           | 2               |                 |                 |         |
|                  | 8          | 0        | <b>Clavi.</b>   | 2              | 64               | 64              | TngoAcd2        | 2               | 25              | 0                | <b>NylonGtr</b>  | 1               | Brass           | 57              | 0                | <b>Trumpet</b>  | 1               |                 |         |
|                  | 1          | 1        | Clavi. K        | 1              | 16               | 16              | NylonGt2        | 1               | 16              | 16               | Seq Bass         | 2               |                 | 16              | 16               | Trumpet2        | 1               |                 |         |
|                  | 27         | ClaviWah | 2               | 25             | 25               | NylonGt3        | 2               | 18              | 18              | ClkSynBa         | 2                | 17              |                 | 17              | BriteTrp         | 2               |                 |                 |         |
|                  | 64         | PulseCiv | 1               | 43             | 43               | VelGtHrm        | 2               | 19              | 19              | SynBa2Dk         | 1                | 32              |                 | 32              | WarmTrp          | 2               |                 |                 |         |
|                  | 65         | PierceCl | 2               | 96             | 96               | Ukulele         | 1               | 32              | 32              | SmthBa 2         | 2                | 58              |                 | 0               | <b>Trombone</b>  | 1               |                 |                 |         |
|                  | Chromatic  | 9        | 0               | <b>Celesta</b> | 1                | 26              | 0               | <b>SteelGtr</b> | 1               | 40               | 40               | ModulrBa        |                 | 2               | 18               | 18              | Trmbone2        | 2               |         |
|                  | Percussion | 10       | 0               | <b>Glocken</b> | 1                | 16              | 16              | SteelGt2        | 1               | 41               | 41               | DX Bass         |                 | 2               | 59               | 0               | <b>Tuba</b>     | 1               |         |
|                  | 11         | 0        | <b>MusicBox</b> | 2              | 35               | 35              | 12StrGtr        | 2               | 64              | 64               | X WireBa         | 2               |                 | 16              | 16               | Tuba 2          | 1               |                 |         |
|                  | 64         | Orgel    | 2               | 40             | 40               | Nyln&Stl        | 2               | Strings         | 41              | 0                | <b>Violin</b>    | 1               |                 | 60              | 0                | <b>Mute.Trp</b> | 1               |                 |         |
|                  | 12         | 0        | <b>Vibes</b>    | 1              | 41               | 41              | Stl&Body        | 2               | 8               | 8                | SlowVln          | 1               |                 | 61              | 0                | <b>Fr.Horn</b>  | 2               |                 |         |
|                  | 1          | 1        | VibesK          | 1              | 96               | 96              | Mandolin        | 2               | 42              | 42               | Viola            | 1               |                 | 6               | 6                | FrHrSolo        | 2               |                 |         |
|                  | 45         | HardVibe | 2               | 27             | 0                | <b>Jazz Gtr</b> | 1               | 43              | 43              | <b>Cello</b>     | 1                | 32              |                 | 32              | FrHorn2          | 1               |                 |                 |         |
|                  | 13         | 0        | <b>Marimba</b>  | 1              | 18               | 18              | MelloGtr        | 1               | 44              | 44               | <b>Contrabs</b>  | 1               |                 | 37              | 37               | HornOrch        | 2               |                 |         |
|                  | 1          | 1        | MarimbaK        | 1              | 32               | 32              | JazzAmp         | 2               | 45              | 45               | 0                | <b>Trem.Str</b> |                 | 1               | 62               | 0               | <b>BrasSect</b> | 1               |         |
|                  | 64         | SineMrmb | 2               | 43             | 43               | CleanGtr        | 1               | 8               | 8               | SlowTrStr        | 1                | 35              |                 | 35              | Tp&TbSec         | 2               |                 |                 |         |
|                  | 97         | Balafon2 | 2               | 32             | 32               | JazzGtr         | 2               | 40              | 40              | Susp Str         | 2                | 40              |                 | 40              | BrssSec2         | 2               |                 |                 |         |
|                  | 98         | Log Drum | 2               | 28             | 0                | <b>CleanGtr</b> | 1               | 46              | 46              | 0                | <b>Pizz.Str</b>  | 1               |                 | 41              | 41               | HiBrass         | 2               |                 |         |
|                  | 14         | 0        | <b>Xylophon</b> | 1              | 32               | 32              | ChorusGt        | 2               | 47              | 47               | 0                | <b>Harp</b>     | 1               | 42              | 42               | MelloBrs        | 2               |                 |         |
|                  | 15         | 0        | <b>TubulBel</b> | 1              | 29               | 0               | <b>Mute.Gtr</b> | 1               | 40              | 40               | YangChin         | 2               | 63              | 0               | <b>SynBras1</b>  | 2               |                 |                 |         |
|                  | 96         | ChrchBel | 2               | 40             | 40               | FunkGtr1        | 2               | 41              | 41              | MuteStIG         | 2                | 12              | 12              | QuackBr         | 2                |                 |                 |                 |         |
|                  | 97         | Carillon | 2               | 43             | 43               | FunkGtr2        | 2               | 45              | 45              | Jazz Man         | 1                | 20              | 20              | RezSynBr        | 2                |                 |                 |                 |         |
|                  | 16         | 0        | <b>Dulcimer</b> | 1              | 45               | 45              | Jazz Man        | 1               | 30              | 0                | <b>Ovrdrive</b>  | 1               | 24              | 24              | PolyBrss         | 2               |                 |                 |         |
|                  | 35         | Dulcimr2 | 2               | 30             | 0                | <b>Ovrdrive</b> | 1               | 43              | 43              | Gt.Pinch         | 2                | 27              | 27              | SynBras3        | 2                |                 |                 |                 |         |
|                  | 96         | Cimbalom | 2               | 31             | 0                | <b>Dist.Gtr</b> | 1               | 41              | 41              | FeedbkGt         | 2                | 32              | 32              | JumpBrss        | 2                |                 |                 |                 |         |
|                  | 97         | Santur   | 2               | 40             | 40               | FeedbkGt        | 2               | 41              | 41              | FeedbkGt2        | 2                | 45              | 45              | AnaVelBr        | 2                |                 |                 |                 |         |
|                  |            |          |                 | 41             | 41               | FeedbkGt2       | 2               | 32              | 0               | <b>GtrHarmo</b>  | 1                | 64              | 64              | AnaBrs1         | 2                |                 |                 |                 |         |
|                  |            |          |                 | 65             | 65               | GtFeedbk        | 1               | 65              | 65              | GtFeedbk         | 1                | 64              | 0               | <b>SynBras2</b> | 1                |                 |                 |                 |         |
|                  |            |          | 66              | 66             | GtrHrmo2         | 1               | 66              | 66              | GtrHrmo2        | 1                | 18               | 18              | Soft Brs        | 2               |                  |                 |                 |                 |         |
|                  |            |          |                 |                |                  |                 |                 |                 | 40              | 40               | SynBras4         | 2               | 41              | 41              | ChorBrss         | 2               |                 |                 |         |
|                  |            |          |                 |                |                  |                 |                 |                 | 45              | 45               | VelBras2         | 2               | 45              | 45              | VelBras2         | 2               |                 |                 |         |
|                  |            |          |                 |                |                  |                 |                 |                 | 64              | 64               | AnaBras2         | 2               |                 |                 |                  |                 |                 |                 |         |

- Bank 0 : (GM)
- Bank 1 : Key Scale Planning
- Bank 3 : Stereo
- Bank 6 : Single
- Bank 8 : Slow
- Bank 12 : Fast Decay
- Bank 14 : Double Attack
- Bank 16 : Bright
- Bank 17 : Bright
- Bank 18 : Dark
- Bank 19 : Dark
- Bank 20 : Resonant
- Bank 24 : Attack
- Bank 24 : Release
- Bank 27 : Reso Sweep
- Bank 28 : Muted
- Bank 32 : Detune 1
- Bank 33 : Detune 2
- Bank 34 : Detune 3
- Bank 35 : Octave 1
- Bank 36 : Octave 2
- Bank 37 : 5th 1
- Bank 38 : 5th 2
- Bank 39 : Bend
- Bank 40 : Tutti
- Bank 41 : Tutti
- Bank 42 : Tutti
- Bank 43 : Velo-Switch
- Bank 45 : Velo-Xfade
- Bank 64 : Other wave
- Bank 65 : Other wave
- Bank 66 : Other wave
- Bank 67 : Other wave
- Bank 68 : Other wave
- Bank 69 : Other wave
- Bank 70 : Other wave
- Bank 71 : Other wave
- Bank 72 : Other wave
- Bank 96 : Other wave
- Bank 97 : Other wave
- Bank 98 : Other wave
- Bank 99 : Other wave
- Bank 100 : Other wave
- Bank 101 : Other wave

**Bank Select**

**MSB = 064, LSB = 000**

**SFX Voice**

| Instrument Group | Program # | Bank #               | Voice Name      | Element |
|------------------|-----------|----------------------|-----------------|---------|
| Reed             | 65        | 0                    | <b>SprnoSax</b> | 1       |
|                  | 66        | 0                    | Alto Sax        | 1       |
|                  | 40        |                      | Sax Sect        | 2       |
|                  | 43        |                      | HyprAlto        | 2       |
|                  | 67        | 0                    | <b>TenorSax</b> | 1       |
|                  | 40        |                      | BrthTnSx        | 2       |
|                  | 41        |                      | SoftTenr        | 2       |
|                  | 64        |                      | TnrSax 2        | 1       |
|                  | 68        | 0                    | <b>Bari.Sax</b> | 1       |
|                  | 69        | 0                    | <b>Oboe</b>     | 2       |
|                  | 70        | 0                    | <b>Eng.Horn</b> | 1       |
|                  | 71        | 0                    | <b>Bassoon</b>  | 1       |
| 72               | 0         | <b>Clarinet</b>      | 1               |         |
| Pipe             | 73        | 0                    | <b>Piccolo</b>  | 1       |
|                  | 74        | 0                    | <b>Flute</b>    | 1       |
|                  | 75        | 0                    | <b>Recorder</b> | 1       |
|                  | 76        | 0                    | <b>PanFlute</b> | 1       |
|                  | 77        | 0                    | <b>Bottle</b>   | 2       |
|                  | 78        | 0                    | <b>Shakhchi</b> | 2       |
|                  | 79        | 0                    | <b>Whistle</b>  | 1       |
|                  | 80        | 0                    | <b>Ocarina</b>  | 1       |
| Synth Lead       | 81        | 0                    | <b>SquareLd</b> | 2       |
|                  | 6         |                      | Square 2        | 1       |
|                  | 8         |                      | LMSquare        | 2       |
|                  | 18        |                      | Hollow          | 1       |
|                  | 19        |                      | Shmoog          | 2       |
|                  | 64        |                      | Mellow          | 2       |
|                  | 65        |                      | SoloSine        | 2       |
|                  | 66        |                      | SineLead        | 1       |
|                  | 82        | 0                    | <b>Saw.Lead</b> | 2       |
|                  | 6         |                      | Saw 2           | 1       |
|                  | 8         |                      | ThickSaw        | 2       |
|                  | 18        |                      | DynaSaw         | 1       |
|                  | 19        |                      | DigiSaw         | 2       |
|                  | 20        |                      | Big Lead        | 2       |
|                  | 24        |                      | HeavySyn        | 2       |
|                  | 25        |                      | WaspySyn        | 2       |
|                  | 40        |                      | PulseSaw        | 2       |
|                  | 41        |                      | Dr. Lead        | 2       |
|                  | 45        |                      | VeloLead        | 2       |
|                  | 96        |                      | Seq Ana         | 2       |
|                  | 83        | 0                    | <b>CaliopLd</b> | 2       |
|                  | 65        |                      | Pure Pad        | 2       |
|                  | 84        | 0                    | <b>Chiff Ld</b> | 2       |
|                  | 64        |                      | Rubby           | 2       |
|                  | 85        | 0                    | <b>CharanLd</b> | 2       |
|                  | 64        |                      | DistLead        | 2       |
|                  | 65        |                      | WireLead        | 2       |
|                  | 86        | 0                    | <b>Voice Ld</b> | 2       |
| 24               |           | SynthAah             | 2               |         |
| 64               |           | VoxLead              | 2               |         |
| 87               | 0         | <b>Fifth Ld</b>      | 2               |         |
| 35               |           | Big Five             | 2               |         |
| 88               | 0         | <b>Bass &amp; Ld</b> | 2               |         |
| 16               |           | Big&Low              | 2               |         |
| 64               |           | Fat&Prky             | 2               |         |
| 65               |           | SoftWurl             | 2               |         |
| Synth Pad        | 89        | 0                    | <b>NewAgePd</b> | 2       |
|                  | 64        |                      | Fantasy2        | 2       |
|                  | 90        | 0                    | <b>Warm Pad</b> | 2       |
|                  | 16        |                      | ThickPad        | 2       |
|                  | 17        |                      | Soft Pad        | 2       |
|                  | 18        |                      | SinePad         | 2       |
|                  | 64        |                      | Horn Pad        | 2       |
|                  | 65        |                      | RotarStr        | 2       |
|                  | 91        | 0                    | <b>PolySyPd</b> | 2       |
|                  | 64        |                      | PolyPd80        | 2       |
|                  | 65        |                      | ClickPad        | 2       |
|                  | 66        |                      | Ana Pad         | 2       |
|                  | 67        |                      | SquarPad        | 2       |
|                  | 92        | 0                    | <b>ChoirPad</b> | 2       |
|                  | 64        |                      | Heaven2         | 2       |
|                  | 66        |                      | Itopia          | 2       |
|                  | 67        |                      | CC Pad          | 2       |
| 93               | 0         | <b>BowedPad</b>      | 2               |         |
| 64               |           | Glacier              | 2               |         |
| 65               |           | GlassPad             | 2               |         |
| 94               | 0         | <b>MetalPad</b>      | 2               |         |
| 64               |           | Tine Pad             | 2               |         |
| 65               |           | Pan Pad              | 2               |         |
| 95               | 0         | <b>Halo Pad</b>      | 2               |         |
| 96               | 0         | <b>SweepPad</b>      | 2               |         |
| 20               |           | Shwimmer             | 2               |         |
| 27               |           | Converge             | 2               |         |
| 64               |           | PolarPad             | 2               |         |
| 66               |           | Celstial             | 2               |         |
| Synth Effects    | 97        | 0                    | <b>Rain</b>     | 2       |
|                  | 45        |                      | ClaviPad        | 2       |
|                  | 64        |                      | HrmoRain        | 2       |
|                  | 65        |                      | AfrcnWnd        | 2       |
|                  | 66        |                      | Caribbean       | 2       |
|                  | 98        | 0                    | <b>SoundTrk</b> | 2       |
|                  | 27        |                      | Prologue        | 2       |
|                  | 64        |                      | Ancestrl        | 2       |
|                  | 99        | 0                    | <b>Crystal</b>  | 2       |
|                  | 12        |                      | SynDrCmp        | 2       |
|                  | 14        |                      | Popcorn         | 2       |
|                  | 18        |                      | TinyBell        | 2       |
| 35               |           | RndGlock             | 2               |         |
| 40               |           | GlockChi             | 2               |         |
| 41               |           | ClearBel             | 2               |         |
| 42               |           | ChorBell             | 2               |         |
| 64               |           | SynMalet             | 1               |         |
| 65               |           | SftCryst             | 2               |         |
| 66               |           | LoudGlok             | 2               |         |
| 67               |           | XmasBell             | 2               |         |
| 68               |           | VibeBell             | 2               |         |
| 69               |           | DigiBell             | 2               |         |
| 70               |           | AirBells             | 2               |         |
| 71               |           | BellHarp             | 2               |         |
| 72               |           | Gamelmba             | 2               |         |
| 100              | 0         | <b>Atmosphr</b>      | 2               |         |
| 18               |           | WarmAtms             | 2               |         |
| 19               |           | HollwRls             | 2               |         |
| 40               |           | NylonEP              | 2               |         |
| 64               |           | NylnHarp             | 2               |         |
| 65               |           | Harp Vox             | 2               |         |
| 66               |           | AtmosPad             | 2               |         |
| 67               |           | Planet               | 2               |         |
| 101              | 0         | <b>Bright</b>        | 2               |         |
| 64               |           | FantaBel             | 2               |         |
| 96               |           | Smokey               | 2               |         |
| 102              | 0         | <b>Goblins</b>       | 2               |         |
| 64               |           | GobSyn               | 2               |         |
| 65               |           | 50sSciFi             | 2               |         |
| 66               |           | Ring Pad             | 2               |         |
| 67               |           | Ritual               | 2               |         |
| 68               |           | ToHeaven             | 2               |         |
| 70               |           | Night                | 2               |         |
| 71               |           | Glisten              | 2               |         |
| 96               |           | BelChoir             | 2               |         |
| 103              | 0         | <b>Echoes</b>        | 2               |         |
| 8                |           | EchoPad2             | 2               |         |
| 14               |           | Echo Pan             | 2               |         |
| 64               |           | EchoBell             | 2               |         |
| 65               |           | Big Pan              | 2               |         |
| 66               |           | SynPiano             | 2               |         |
| 67               |           | Creation             | 2               |         |
| 68               |           | Stardust             | 2               |         |
| 69               |           | Reso Pan             | 2               |         |
| 104              | 0         | <b>Sci-Fi</b>        | 2               |         |
| 64               |           | Starz                | 2               |         |

| Instrument Group | Program # | Bank #          | Voice Name       | Element |
|------------------|-----------|-----------------|------------------|---------|
| Ethnic           | 105       | 0               | <b>Sitar</b>     | 1       |
|                  | 32        |                 | DetSitar         | 2       |
|                  | 35        |                 | Sitar 2          | 2       |
|                  | 96        |                 | Tambra           | 2       |
|                  | 97        |                 | Tamboura         | 2       |
|                  | 106       | 0               | <b>Banjo</b>     | 1       |
|                  | 28        |                 | MuteBnjo         | 1       |
|                  | 96        |                 | Rabab            | 2       |
|                  | 97        |                 | Gopichnt         | 2       |
|                  | 98        |                 | Oud              | 2       |
| 107              | 0         | <b>Shamisen</b> | 1                |         |
| 108              | 0         | <b>Koto</b>     | 1                |         |
| 96               |           | T. Koto         | 2                |         |
| 97               |           | Kanoon          | 2                |         |
| 109              | 0         | <b>Kalimba</b>  | 1                |         |
| 110              | 0         | <b>Bagpipe</b>  | 2                |         |
| 111              | 0         | <b>Fiddle</b>   | 1                |         |
| 112              | 0         | <b>Shanai</b>   | 1                |         |
| 64               |           | Shanai2         | 1                |         |
| 96               |           | Pungi           | 1                |         |
| 97               |           | Hichriki        | 2                |         |
| Percussive       | 113       | 0               | <b>TnkBell</b>   | 2       |
|                  | 96        |                 | Bonang           | 2       |
|                  | 97        |                 | Gender           | 2       |
|                  | 98        |                 | Gamelan          | 2       |
|                  | 99        |                 | S.Gamlan         | 2       |
|                  | 100       |                 | Rama Cym         | 2       |
|                  | 101       |                 | AsianBel         | 2       |
|                  | 114       | 0               | <b>Agogo</b>     | 2       |
|                  | 115       | 0               | <b>SteelDrm</b>  | 2       |
|                  | 97        |                 | GlasPerc         | 2       |
|                  | 98        |                 | ThaiBell         | 2       |
|                  | 116       | 0               | <b>WoodBlok</b>  | 1       |
|                  | 96        |                 | Castanet         | 1       |
|                  | 117       | 0               | <b>TaikoDrm</b>  | 1       |
|                  | 96        |                 | Gr.Cassa         | 1       |
|                  | 118       | 0               | <b>MelodTom</b>  | 2       |
|                  | 64        |                 | Mel Tom2         | 1       |
| 65               |           | Real Tom        | 2                |         |
| 66               |           | Rock Tom        | 2                |         |
| 119              | 0         | <b>Syn.Drum</b> | 1                |         |
| 64               |           | Ana Tom         | 1                |         |
| 65               |           | ElecPerc        | 2                |         |
| 120              | 0         | <b>RevCymb1</b> | 1                |         |
| Sound Effects    | 121       | 0               | <b>FretNoiz</b>  | 2       |
|                  | 122       | 0               | <b>BrthNoiz</b>  | 2       |
|                  | 123       | 0               | <b>Seashore</b>  | 2       |
|                  | 124       | 0               | <b>Tweet</b>     | 2       |
|                  | 125       | 0               | <b>Telephone</b> | 1       |
|                  | 126       | 0               | <b>Helicptr</b>  | 1       |
|                  | 127       | 0               | <b>Applause</b>  | 1       |
|                  | 128       | 0               | <b>Gunshot</b>   | 1       |

| Program # | MSB=064<br>LSB=000 | Element | Program # | MSB=064<br>LSB=000 | Element |
|-----------|--------------------|---------|-----------|--------------------|---------|
| 1         | CutngNz            | 1       | 65        | TelDial            | 1       |
| 2         | CtngNz2            | 2       | 66        | DoorSgek           | 1       |
| 3         |                    |         | 67        | Door Slam          | 1       |
| 4         | Str Slap           | 1       | 68        | Scratch            | 1       |
| 5         |                    |         | 69        | Scratch 2          | 2       |
| 6         |                    |         | 70        | WindChm            | 1       |
| 7         |                    |         | 71        | Telphon2           | 1       |
| 8         |                    |         | 72        |                    |         |
| 9         |                    |         | 73        |                    |         |
| 10        |                    |         | 74        |                    |         |
| 11        |                    |         | 75        |                    |         |
| 12        |                    |         | 76        |                    |         |
| 13        |                    |         | 77        |                    |         |
| 14        |                    |         | 78        |                    |         |
| 15        |                    |         | 79        |                    |         |
| 16        |                    |         | 80        |                    |         |
| 17        | Fl.KKlik           | 1       | 81        | CarEngin           | 1       |
| 18        |                    |         | 82        | Car Stop           | 1       |
| 19        |                    |         | 83        | Car Pass           | 1       |
| 20        |                    |         | 84        | CarCrash           | 1       |
| 21        |                    |         | 85        | Siren              | 2       |
| 22        |                    |         | 86        | Train              | 1       |
| 23        |                    |         | 87        | Jetplane           | 2       |
| 24        |                    |         | 88        | Starship           | 2       |
| 25        |                    |         | 89        | Burst              | 2       |
| 26        |                    |         | 90        | Coaster            | 2       |
| 27        |                    |         | 91        | SbMarine           | 2       |
| 28        |                    |         | 92        |                    |         |
| 29        |                    |         | 93        |                    |         |
| 30        |                    |         | 94        |                    |         |
| 31        |                    |         | 95        |                    |         |
| 32        |                    |         | 96        |                    |         |
| 33        | Rain               | 1       | 97        | Laughing           | 1       |
| 34        | Thunder            | 1       | 98        | Scream             | 1       |
| 35        | Wind               | 1       | 99        | Punch              | 1       |
| 36        | Stream             | 2       | 100       | Heart              | 1       |
| 37        | Bubble             | 2       | 101       | FootStep           | 1       |
| 38        | Feed               | 2       | 102       |                    |         |
| 39        |                    |         | 103       |                    |         |
| 40        |                    |         | 104       |                    |         |
| 41        |                    |         | 105       |                    |         |
| 42        |                    |         | 106       |                    |         |
| 43        |                    |         | 107       |                    |         |
| 44        |                    |         | 108       |                    |         |
| 45        |                    |         | 109       |                    |         |
| 46        |                    |         | 110       |                    |         |
| 47        |                    |         | 111       |                    |         |
| 48        |                    |         | 112       |                    |         |
| 49        | Dog                | 1       | 113       | MchinGun           | 1       |
| 50        | Horse              | 1       | 114       | LaserGun           | 2       |
| 51        | Bird 2             | 1       | 115       | Xplosion           | 2       |
| 52        |                    |         | 116       | FireWork           | 2       |
| 53        |                    |         | 117       |                    |         |
| 54        |                    |         | 118       |                    |         |
| 55        | Ghost              | 2       | 119       |                    |         |
| 56        | Maou               | 2       | 120       |                    |         |
| 57        |                    |         | 121       |                    |         |
| 58        |                    |         | 122       |                    |         |
| 59        |                    |         | 123       |                    |         |
| 60        |                    |         | 124       |                    |         |
| 61        |                    |         | 125       |                    |         |
| 62        |                    |         | 126       |                    |         |
| 63        |                    |         | 127       |                    |         |
| 64        |                    |         | 128       |                    |         |

█ : No Sound



# TG300B Normal Voice List

Bank Select MSB = Bank Number, LSB = 000

| Instrument Group | Program # | Bank # | Voice Name | Element  | Instrument Group | Program # | Bank #   | Voice Name | Element  | Instrument Group | Program # | Bank #   | Voice Name | Element  | Instrument Group | Program # | Bank #   | Voice Name | Element |
|------------------|-----------|--------|------------|----------|------------------|-----------|----------|------------|----------|------------------|-----------|----------|------------|----------|------------------|-----------|----------|------------|---------|
| Piano            | 1         | 0      | GrandPno   | 1        | Organ            | 17        | 0        | DrawOrgn   | 1        | Guitar           | 29        | 0        | Mute.Gtr   | 1        | Strings          | 41        | 0        | Violin     | 1       |
|                  |           | 8      | GrndPnoK   | 1        |                  |           | 1        | 70sDrOr1   | 2        |                  |           | 8        | FunkGtr1   | 2        |                  |           | 8        | SlowVln    | 1       |
|                  |           | 16     | MelloGrP   | 1        |                  |           | 8        | DetDrwOr   | 2        |                  |           | 16       | FunkGtr2   | 2        |                  |           | 126      | E-Organ4   | 2       |
|                  |           | 126    | A-Piano1   | 2        |                  |           | 9        | 70sDrOr2   | 2        |                  |           | 126      | A-Bass     | 2        |                  |           | 127      | syncho1    | 2       |
|                  |           | 127    | a.piano1   | 1        |                  |           | 16       | 60sDrOr1   | 2        |                  |           | 127      | synbass1   | 1        |                  |           | 42       | 0          | Viola   |
|                  | 2         | 0      | BritePno   | 1        |                  |           | 17       | 60sDrOr2   | 2        |                  |           | 30       | Ovrdrive   | 1        |                  |           | 126      | E-Organ5   | 2       |
|                  |           | 8      | BritPnoK   | 1        |                  |           | 18       | 60sDrOr3   | 2        |                  |           | 126      | Choir-1    | 1        |                  |           | 127      | rain       | 2       |
|                  |           | 126    | A-Piano2   | 2        |                  |           | 24       | CheezOrg   | 2        |                  |           | 127      | synbass2   | 1        |                  |           | 43       | 0          | Cello   |
|                  |           | 127    | a.piano2   | 1        |                  |           | 32       | DrawOrg2   | 2        |                  |           | 31       | 0          | Dist.Gtr |                  | 1         | 126      | E-Organ6   | 2       |
|                  |           | 3      | 0          | E.Grand  |                  |           | 2        | 33         | EvenBar  |                  |           | 2        | 8          | FeedbkGt |                  | 2         | 127      | synoboe    | 2       |
|                  | 1         |        | ElGrPno1   | 2        |                  |           | 40       | Organ Ba   | 1        |                  |           | 9        | FeedbGt2   | 2        |                  | 126       | Contrabs | 1          |         |
|                  | 2         |        | ElGrPno2   | 2        |                  |           | 126      | Slap-2     | 2        |                  |           | 126      | Choir-2    | 1        |                  | 127       | E-Organ7 | 2          |         |
|                  | 8         |        | ElGrPnoK   | 2        |                  |           | 127      | harpsi1    | 1        |                  |           | 127      | synbass3   | 2        |                  | 44        | 0        | syncho2    | 2       |
|                  | 126       |        | A-Piano3   | 2        |                  |           | 18       | 0          | PercOrgn |                  |           | 1        | 32         | 0        |                  | GtrHarmo  | 1        | 45         | 0       |
|                  | 4         | 0      | HnkyTonk   | 2        |                  |           | 1        | 70sPcOr1   | 2        |                  | 8         | GtFeedbk | 1          | 8        |                  | SlowTrStr | 1        |            |         |
|                  |           | 8      | HnkyTnkK   | 2        |                  |           | 8        | DetPreOr   | 2        |                  | 126       | Choir-3  | 2          | 9        |                  | Susp Str  | 2        |            |         |
|                  |           | 126    | A-Piano4   | 2        |                  |           | 32       | PercOrg2   | 2        |                  | 127       | synbass4 | 1          | 126      |                  | E-Organ8  | 2        |            |         |
|                  |           | 127    | e.piano1   | 1        |                  | 126       | Slap-3   | 2          | 126      |                  | Choir-4   | 2        | 127        | synsolo  |                  | 2         |          |            |         |
|                  |           | 5      | 0          | E.Piano1 |                  | 2         | 127      | harpsi2    | 2        |                  | 127       | newagepd | 2          | 46       |                  | 0         | Pizz.Str | 1          |         |
|                  | 8         |        | Chor.EP1   | 2        |                  | 19        | 0        | RockOrgn   | 2        |                  | 34        | 0        | FngrBass   | 1        |                  | 126       | E-Organ9 | 2          |         |
|                  | 16        |        | VX EL.P1   | 2        |                  | 8         | RotaryOr | 2          | 16       |                  | FngBass2  | 2        | 127        | syndorg  |                  | 2         |          |            |         |
|                  | 24        |        | 60sELP     | 1        |                  | 16        | SloRotar | 2          | 1        |                  | Strngs-1  | 2        | 47         | 0        |                  | Harp      | 1        |            |         |
|                  | 25        |        | HardELP    | 2        |                  | 24        | FstRotar | 2          | 126      |                  | synharmo  | 2        | 127        | SofTP-1  |                  | 1         |          |            |         |
|                  | 6         | 0      | E.Piano2   | 2        |                  | 126       | Slap-4   | 2          | 35       |                  | 0         | PickBass | 1          | 126      |                  | SofTP-2   | 1        |            |         |
|                  |           | 8      | Chor.EP2   | 2        |                  | 127       | harpsi3  | 1          | 8        |                  | MutePkBa  | 1        | 127        | squareld |                  | 2         |          |            |         |
|                  |           | 16     | VX EL.P2   | 2        |                  | 16        | ChurOrg3 | 2          | 126      |                  | Strngs-2  | 2        | 48         | 0        |                  | Timpani   | 1        |            |         |
|                  |           | 24     | DX Hard    | 2        |                  | 24        | OrgFlute | 2          | 127      |                  | choir pd  | 2        | 126        | Strings1 |                  | 1         |          |            |         |
|                  |           | 32     | El.Pno2K   | 1        |                  | 32        | TrmOrgFl | 2          | 36       |                  | 0         | Fretless | 1          | 1        |                  | Slow Str  | 1        |            |         |
|                  | 7         | 0      | Harpsi.    | 1        |                  | 126       | Slap-5   | 2          | 1        | Fretles2         | 2         | 8        | Orchestr   | 2        |                  |           |          |            |         |
|                  |           | 8      | Harpsi.3   | 2        |                  | 127       | clavi1   | 1          | 2        | Fretles3         | 2         | 9        | Orchstr2   | 2        |                  |           |          |            |         |
|                  |           | 16     | Harpsi.K   | 1        |                  | 21        | 0        | ReedOrgn   | 1        | 3                | Fretles4  | 2        | 10         | TremOrch |                  | 2         |          |            |         |
|                  |           | 24     | Harpsi.2   | 2        |                  | 126       | Slap-6   | 2          | 4        | SynFretl         | 2         | 11       | ChoirStr   | 2        |                  |           |          |            |         |
|                  |           | 126    | A-Piano7   | 1        |                  | 127       | clavi2   | 1          | 5        | Smooth           | 2         | 16       | S.Strngs   | 2        |                  |           |          |            |         |
|                  | 8         | 0      | Clavi.     | 2        |                  | 22        | 0        | Accordion  | 2        | 126              | Strngs-3  | 2        | 24         | VeloStr  |                  | 2         |          |            |         |
|                  |           | 8      | Clavi. K   | 1        |                  | 8         | AccordIt | 2          | 8        | bowed pd         | 2         | 126      | TP/TRB-1   | 1        |                  |           |          |            |         |
|                  |           | 126    | E-Piano1   | 1        |                  | 126       | Slap-7   | 2          | 127      | SlapBas1         | 1         | 127      | strsect1   | 2        |                  |           |          |            |         |
|                  |           | 127    | hntytk     | 2        |                  | 127       | clavi3   | 1          | 8        | ResoSlap         | 1         | 50       | 0          | Strings2 |                  | 1         |          |            |         |
|                  |           | 9      | 0          | Celesta  |                  | 1         | 23       | 0          | Harmnica | 1                | 126       | Strngs-4 | 2          | 1        |                  | 70s Str   | 1        |            |         |
|                  | 126       |        | E-Piano2   | 2        |                  | 1         | Harmo 2  | 2          | 126      | soundtrk         | 2         | 8        | Legato Str | 2        |                  |           |          |            |         |
|                  | 127       |        | e.organ1   | 2        |                  | 126       | Slap-8   | 2          | 127      | atmosphr         | 2         | 9        | Warm Str   | 2        |                  |           |          |            |         |
|                  | 10        |        | 0          | Glocken  |                  | 1         | 127      | celesta1   | 1        | 39               | 0         | SynBass1 | 1          | 10       |                  | S.SlwStr  | 2        |            |         |
|                  |           |        | 126        | E-Piano3 |                  | 2         | 24       | TangoAcid  | 2        | 1                | SynBass2  | 1        | 126        | TP/TRB-2 |                  | 1         |          |            |         |
|                  |           | 127    | e.organ2   | 2        |                  | 126       | Finger-1 | 1          | 8        | SynBa1Dk         | 1         | 127      | strsect2   | 2        |                  |           |          |            |         |
|                  |           | 11     | 0          | MusicBox |                  | 2         | 127      | celesta2   | 1        | 1                | AcidBass  | 1        | 51         | 0        |                  | Syn.Str1  | 2        |            |         |
|                  |           |        | 126        | A-Guitr1 | 1                | 25        | 0        | NylonGtr   | 1        | 8                | FastResB  | 1        | 1          | Syn Str4 |                  | 2         |          |            |         |
|                  | 127       |        | e.organ3   | 1        | 8                | Ukulele   | 1        | 9          | TeknoBa  | 2                | 126       | TP/TRB-3 | 1          |          |                  |           |          |            |         |
|                  | 12        |        | 0          | Vibes    | 1                | 16        | NylonGt3 | 2          | 10       | ResoBass         | 1         | 127      | strsect3   | 2        |                  |           |          |            |         |
|                  |           |        | 1          | HardVibe | 2                | 24        | VelGtHrm | 2          | 16       | E-Organ2         | 2         | 52       | 0          | Syn.Str2 |                  | 2         |          |            |         |
|                  |           | 8      | VibesK     | 1        | 32               | NylonGt2  | 1        | 126        | syn warm | 2                | 127       | TP/TRB-4 | 1          |          |                  |           |          |            |         |
|                  |           | 126    | A-Guitr2   | 1        | 40               | LequintG  | 1        | 9          | X WireBa | 2                | 127       | pizz.str | 1          |          |                  |           |          |            |         |
|                  |           | 127    | e.organ4   | 2        | 126              | Finger-2  | 2        | 16         | RubberBa | 2                | 53        | 0        | ChoirAah   | 1        |                  |           |          |            |         |
|                  | 13        | 0      | Marimba    | 1        | 127              | synbras1  | 2        | 3          | Seq Bass | 2                | 8         | S.Choir  | 2          |          |                  |           |          |            |         |
|                  |           | 8      | MarimbaK   | 1        | 26               | 0         | SteelGtr | 1          | 8        | DX Bass          | 2         | 9        | MelChoir   | 2        |                  |           |          |            |         |
|                  |           | 17     | Balafon2   | 2        | 8                | 12StrGtr  | 2        | 9          | X WireBa | 2                | 32        | Ch.Aahs2 | 2          |          |                  |           |          |            |         |
|                  |           | 24     | Log Drum   | 2        | 9                | Nyln&Stl  | 2        | 16         | RubberBa | 2                | 126       | TP/TRB-5 | 2          |          |                  |           |          |            |         |
|                  |           | 126    | A-Guitr3   | 2        | 16               | Mandolin  | 2        | 17         | SynBa2Dk | 1                | 127       | violin 1 | 2          |          |                  |           |          |            |         |
|                  | 14        | 0      | Xylophon   | 1        | 32               | SteelGt2  | 1        | 18         | MelloSB1 | 1                | 54        | 0        | VoiceOoh   | 1        |                  |           |          |            |         |
|                  |           | 126    | E-Guitr1   | 2        | 126              | Picked-1  | 1        | 19         | SmthBa 2 | 2                | 126       | TP/TRB-6 | 2          |          |                  |           |          |            |         |
|                  |           | 127    | pipeorg2   | 2        | 127              | synbras2  | 2        | 126        | E-Organ3 | 2                | 127       | violin 2 | 1          |          |                  |           |          |            |         |
|                  |           | 15     | 0          | TubulBel | 1                | 27        | 0        | Jazz Gtr   | 1        | 127              | synfunny  | 1        | 55         | 0        | SynVoice         | 1         |          |            |         |
|                  |           |        | 8          | ChrchBel | 2                | 1         | MelloGtr | 1          | 8        | ClkSynBa         | 2         | 126      | SynVox2    | 2        |                  |           |          |            |         |
|                  | 9         |        | Carillon   | 2        | 8                | PdlSteel  | 1        | 9          | ModulrBa | 2                | 126       | Sax-1    | 1          |          |                  |           |          |            |         |
|                  | 126       |        | E-Guitr2   | 1        | 126              | Picked-2  | 2        | 16         | Impact   | 2                | 127       | cello 1  | 1          |          |                  |           |          |            |         |
|                  | 127       |        | pipeorg3   | 2        | 127              | synbras3  | 2        | 8          | Orch.Hit | 2                | 56        | 0        | Orch.Hit2  | 2        |                  |           |          |            |         |
|                  | 16        | 0      | Dulcimer   | 1        | 28               | 0         | CleanGtr | 1          | 8        | LoFiRave         | 2         | 1        | Impact     | 2        |                  |           |          |            |         |
|                  |           | 1      | Dulcirm2   | 2        | 8                | ChorusGt  | 2        | 126        | FretlsBs | 1                | 16        | LoFiRave | 2          |          |                  |           |          |            |         |
|                  |           | 8      | Cimbalom   | 2        | 126              | FretlsBs  | 1        | 126        | synbras4 | 2                | 126       | Sax-2    | 1          |          |                  |           |          |            |         |
|                  |           | 126    | Slap-1     | 2        | 127              | synbras4  | 2        | 127        | cello 2  | 1                | 127       | cello 2  | 1          |          |                  |           |          |            |         |
|                  |           | 127    | acordion   | 2        |                  |           |          |            |          |                  |           |          |            |          |                  |           |          |            |         |

# MIDI Data Format

| Instrument Group | Program # | Bank #   | Voice Name      | Element  | Instrument Group | Program # | Bank #   | Voice Name | Element  | Instrument Group | Program # | Bank #   | Voice Name | Element | Instrument Group | Program # | Bank #   | Voice Name | Element  |     |       |          |     |     |   |
|------------------|-----------|----------|-----------------|----------|------------------|-----------|----------|------------|----------|------------------|-----------|----------|------------|---------|------------------|-----------|----------|------------|----------|-----|-------|----------|-----|-----|---|
| Brass            | 57        | 0        | Trumpet         | 1        | Synth Lead       | 81        | 0        | SquareLd   | 2        | Synth Effects    | 97        | 0        | Rain       | 2       | Percussive       | 113       | 0        | TnkIBell   | 2        |     |       |          |     |     |   |
|                  |           | 1        | Trumpet2        | 1        |                  |           | 1        | Square 2   | 1        |                  |           | 1        | HrmoRain   | 2       |                  |           | 8        | Bonang     | 2        |     |       |          |     |     |   |
|                  |           | 24       | BriteTrp        | 2        |                  |           | 2        | Hollow     | 1        |                  |           | 2        | AfrcnWnd   | 2       |                  |           | 9        | Gender     | 2        |     |       |          |     |     |   |
|                  |           | 25       | WarmTrp         | 2        |                  |           | 3        | Mellow     | 2        |                  |           | 8        | ClaviPad   | 2       |                  |           | 10       | Gamelan    | 2        |     |       |          |     |     |   |
|                  |           | 126      | Sax-3           | 1        |                  |           | 4        | SoloSine   | 2        |                  |           | 127      | brssect2   | 2       |                  |           | 11       | S.Gamlan   | 2        |     |       |          |     |     |   |
|                  | 127       | contrabs | 1               | 5        |                  |           | Shmoog   | 2          | 0        |                  |           | SoundTrk | 2          | 16      |                  |           | Rama Cym | 2          |          |     |       |          |     |     |   |
|                  | 58        | 0        | Trombone        | 1        |                  |           | 6        | LMSquare   | 2        |                  |           | 1        | Ancestrl   | 2       |                  |           | 127      | timpani    | 1        | 0   | Agogo | 2        |     |     |   |
|                  | 1         | Trmbone2 | 2               | 8        |                  |           | SineLead | 1          | 2        |                  |           | Prologue | 2          | 114     |                  |           | 0        | 127        | melotom  | 2   | 0     | SteelDrm | 2   |     |   |
|                  | 126       | Sax-4    | 2               | 127      |                  |           | sax3     | 1          | 127      |                  |           | vibe1    | 1          | 0       |                  |           | 127      | 127        | deepsnar | 1   | 0     | 127      | 127 |     |   |
|                  | 127       | harp 1   | 1               | 82       |                  |           | 0        | Saw.Lead   | 2        |                  |           | 0        | Crystal    | 2       |                  |           | 115      | 0          | 127      | 127 | 0     | 127      | 0   |     |   |
|                  | 59        | 0        | Tuba            | 1        |                  |           | 1        | Saw 2      | 1        |                  |           | 1        | SynMalet   | 1       |                  |           | 1        | 0          | 127      | 127 | 0     | 127      | 0   | 127 | 0 |
|                  |           | 1        | Tuba 2          | 1        |                  |           | 2        | PulseSaw   | 2        |                  |           | 2        | SftCryst   | 2       |                  |           | 2        | 0          | 127      | 127 | 0     | 127      | 0   | 127 | 0 |
|                  |           | 126      | Brass-1         | 1        |                  |           | 3        | ThickSaw   | 2        |                  | 3         | RndGlock | 2          | 3       |                  |           | 8        | 127        | 127      | 8   | 127   | 8        | 127 | 8   |   |
|                  |           | 127      | harp 2          | 1        |                  |           | 4        | Big Lead   | 2        |                  | 4         | LoudGlok | 2          | 4       |                  | 0         | 127      | 127        | 0        | 127 | 0     | 127      | 0   |     |   |
|                  | 60        | 0        | Mute.Trp        | 1        |                  |           | 5        | VeloLead   | 2        |                  | 5         | GlockChi | 2          | 5       |                  | 0         | 127      | 127        | 0        | 127 | 0     | 127      | 0   |     |   |
|                  |           | 126      | Brass-2         | 1        |                  | 6         | HeavySyn | 2          | 6        |                  | ClearBel  | 2        | 6          | 8       |                  | 127       | 127      | 8          | 127      | 8   | 127   | 8        |     |     |   |
|                  |           | 127      | guitar 1        | 2        |                  | 7         | DynaSaw  | 1          | 7        |                  | XmasBell  | 2        | 7          | 0       |                  | 127       | 127      | 0          | 127      | 0   | 127   | 0        |     |     |   |
|                  | 61        | 0        | Fr.Horn         | 2        |                  | 8         | Dr. Lead | 2          | 8        |                  | VibeBell  | 2        | 8          | 0       |                  | 127       | 127      | 0          | 127      | 0   | 127   | 0        |     |     |   |
|                  |           | 1        | FrHorn2         | 2        |                  | 16        | WaspySyn | 2          | 9        |                  | DigiBell  | 2        | 9          | 1       |                  | 127       | 127      | 1          | 127      | 1   | 127   | 1        |     |     |   |
|                  |           | 8        | FrHrSolo        | 1        |                  | 127       | sax4     | 1          | 16       |                  | ChorBell  | 2        | 16         | 8       |                  | 127       | 127      | 8          | 127      | 8   | 127   | 8        |     |     |   |
|                  |           | 16       | HornOrch        | 2        |                  | 83        | 0        | CaliopLd   | 2        |                  | 17        | AirBells | 2          | 9       |                  | 0         | 127      | 127        | 9        | 127 | 9     | 127      |     |     |   |
|                  | 62        | 0        | BrasSect        | 1        |                  | 2         | Pure Pad | 2          | 18       |                  | BellHarp  | 2        | 18         | 0       |                  | 127       | 127      | 0          | 127      | 0   | 127   | 0        |     |     |   |
|                  |           | 8        | BrssSec2        | 2        |                  | 127       | clarint1 | 1          | 19       |                  | Gamelmba  | 2        | 19         | 8       |                  | 127       | 127      | 8          | 127      | 8   | 127   | 8        |     |     |   |
|                  |           | 126      | Brass-4         | 2        |                  | 84        | 0        | Chiff Ld   | 2        |                  | 127       | clarint2 | 1          | 100     |                  | 0         | 127      | 127        | 0        | 127 | 0     | 127      |     |     |   |
|                  |           | 127      | elecgr1         | 2        |                  | 127       | clarint2 | 1          | 0        |                  | WarmAtms  | 2        | 1          | 1       |                  | 127       | 127      | 1          | 127      | 1   | 127   | 1        |     |     |   |
|                  | 63        | 0        | SynBras1        | 2        |                  | 85        | 0        | CharanLd   | 2        |                  | 2         | NylHarp  | 2          | 2       |                  | 3         | 127      | 2          | 3        | 127 | 2     | 3        |     |     |   |
|                  |           | 1        | PolyBrss        | 2        |                  | 8         | DistLead | 2          | 8        |                  | Harp Vox  | 2        | 3          | 4       | 127              | 127       | 4        | 127        | 4        | 127 | 4     |          |     |     |   |
|                  |           | 8        | SynBras3        | 2        |                  | 86        | 0        | Voice Ld   | 2        |                  | 0         | HollwRls | 2          | 4       | 0                | 127       | 127      | 0          | 127      | 0   | 127   |          |     |     |   |
|                  |           | 9        | QuackBr         | 2        |                  | 127       | eng.horn | 1          | 87       |                  | 0         | NylonEP  | 2          | 5       | 0                | 127       | 127      | 5          | 127      | 5   | 127   |          |     |     |   |
|                  |           | 16       | AnaBrss1        | 2        |                  | 1         | Fifth Ld | 2          | 1        |                  | AtmosPad  | 2        | 6          | 0       | 127              | 127       | 0        | 127        | 0        | 127 | 0     |          |     |     |   |
|                  |           | 126      | Brass-5         | 2        |                  | 127       | Big Five | 2          | 127      |                  | symallet  | 1        | 127        | 0       | 127              | 127       | 0        | 127        | 0        | 127 | 0     |          |     |     |   |
|                  |           | 127      | elecgr2         | 2        |                  | 88        | 0        | Bass & Ld  | 2        |                  | 0         | Bright   | 2          | 101     | 0                | 127       | 127      | 0          | 127      | 0   | 127   |          |     |     |   |
|                  |           | 64       | 0               | SynBras2 |                  | 1         | 1        | Fat&Prky   | 2        |                  | 1         | maletwin | 2          | 102     | 0                | 127       | 127      | 0          | 127      | 0   | 127   | 0        |     |     |   |
|                  |           |          | 1               | Soft Brs |                  | 2         | 2        | harmnica   | 1        |                  | 1         | Goblins  | 2          | 1       | 1                | 127       | 127      | 1          | 127      | 1   | 127   | 1        |     |     |   |
|                  |           |          | 8               | SynBras4 |                  | 2         | 89       | 0          | NewAgePd |                  | 2         | 1        | GobSyn     | 2       | 2                | 0         | 127      | 127        | 2        | 127 | 2     | 127      |     |     |   |
|                  | 16        |          | AnaBrss2        | 2        |                  | 1         | Fantasy2 | 2          | 1        |                  | 50sSciFi  | 2        | 2          | 0       | 127              | 127       | 0        | 127        | 0        | 127 | 0     |          |     |     |   |
|                  | Reed      | 65       | 0               | SprnoSax |                  | 1         | 127      | 1          | 127      | trumpet1         | 1         | 90       | 0          | 127     | 127              | 0         | 127      | 0          | 127      | 0   |       |          |     |     |   |
|                  |           |          | 127             | a.bass 1 |                  | 1         | 0        | Warm Pad   | 2        | 1                | ThickPad  | 2        | 1          | 1       | 127              | 127       | 1        | 127        | 1        | 127 |       |          |     |     |   |
|                  |           | 66       | 0               | Alto Sax |                  | 1         | 2        | Horn Pad   | 2        | 2                | Horn Pad  | 2        | 2          | 0       | 127              | 127       | 0        | 127        | 0        | 127 | 0     |          |     |     |   |
|                  |           |          | 8               | HyprAlto |                  | 2         | 3        | RotarStr   | 2        | 3                | EchoPad2  | 2        | 3          | 1       | 127              | 127       | 1        | 127        | 1        | 127 | 1     |          |     |     |   |
|                  |           | 67       | 0               | TnrSax 2 |                  | 1         | 4        | Soft Pad   | 2        | 4                | Big Pan   | 2        | 4          | 0       | 127              | 127       | 0        | 127        | 0        | 127 | 0     |          |     |     |   |
| 8                |           |          | BrthTnSx        | 2        | 127              | trumpet2  | 1        | 6          | SynPiano | 2                | 6         | 1        | 127        | 127     | 1                | 127       | 1        | 127        | 1        |     |       |          |     |     |   |
| 68               |           | 0        | Bari.Sax        | 1        | 91               | 0         | PolySyPd | 2          | 1        | tubulbel         | 1         | 104      | 0          | 127     | 127              | 0         | 127      | 0          | 127      |     |       |          |     |     |   |
|                  |           | 127      | e.bass 2        | 1        | 1                | PolyPd80  | 2        | 1          | Sci-Fi   | 2                | 1         | 1        | 127        | 127     | 1                | 127       | 1        | 127        | 1        |     |       |          |     |     |   |
| 69               |           | 0        | Oboe            | 2        | 127              | 1         | trmbone1 | 2          | 127      | xylophon         | 2         | 105      | 0          | 127     | 127              | 0         | 127      | 0          | 127      |     |       |          |     |     |   |
|                  |           | 127      | slapbas1        | 1        | 92               | 0         | ChoirPad | 2          | 1        | Sitar            | 2         | 1        | 1          | 127     | 127              | 1         | 127      | 1          | 127      |     |       |          |     |     |   |
|                  |           | 70       | 0               | Eng.Horn | 1                | 1         | Heaven2  | 2          | 1        | DetSitar         | 2         | 2        | 1          | 127     | 127              | 1         | 127      | 1          | 127      | 1   |       |          |     |     |   |
|                  |           |          | 127             | slapbas2 | 1                | 127       | trmbone2 | 2          | 8        | Tambra           | 2         | 8        | 16         | 127     | 127              | 16        | 127      | 16         | 127      | 16  |       |          |     |     |   |
|                  |           | 71       | 0               | Bassoon  | 1                | 93        | 0        | BowedPad   | 2        | 127              | Tamboura  | 2        | 16         | 0       | 127              | 127       | 16       | 127        | 16       | 127 |       |          |     |     |   |
|                  |           |          | 127             | fretles1 | 1                | 127       | fr.horn1 | 1          | 127      | marimba          | 2         | 127      | 0          | 127     | 127              | 0         | 127      | 0          | 127      | 0   |       |          |     |     |   |
|                  |           | 72       | 0               | Clarinet | 1                | 94        | 0        | MetalPad   | 2        | 1                | Banjo     | 1        | 1          | 1       | 127              | 127       | 1        | 127        | 1        | 127 |       |          |     |     |   |
|                  |           |          | 127             | fretles2 | 1                | 1         | Tine Pad | 2          | 1        | MuteBnjo         | 2         | 1        | 8          | 0       | 127              | 127       | 8        | 127        | 8        | 127 |       |          |     |     |   |
|                  |           | Pipe     | 73              | 0        | Piccolo          | 1         | 2        | Pan Pad    | 2        | 2                | Rabab     | 1        | 8          | 16      | 127              | 127       | 16       | 127        | 16       | 127 | 16    |          |     |     |   |
|                  |           |          |                 | 127      | flute1           | 1         | 127      | fr.horn2   | 2        | 127              | Gopichnt  | 2        | 16         | 0       | 127              | 127       | 0        | 127        | 0        | 127 | 0     |          |     |     |   |
| 74               |           |          | 0               | Flute    | 1                | 95        | 0        | Halo Pad   | 2        | 0                | Oud       | 2        | 24         | 0       | 127              | 127       | 24       | 127        | 24       | 127 |       |          |     |     |   |
|                  |           |          | 127             | flute2   | 1                | 127       | tuba     | 2          | 127      | koto             | 1         | 127      | 0          | 127     | 127              | 0         | 127      | 0          | 127      | 0   |       |          |     |     |   |
| 75               | 0         |          | Recorder        | 1        | 96               | 0         | SweepPad | 2          | 1        | Shamisen         | 1         | 0        | 127        | 127     | 0                | 127       | 0        | 127        | 0        |     |       |          |     |     |   |
|                  | 127       |          | piccolo1        | 1        | 1                | PolarPad  | 2        | 1          | sho      | 2                | 0         | 127      | 127        | 0       | 127              | 0         | 127      | 0          | 127      |     |       |          |     |     |   |
| 76               | 0         |          | PanFlute        | 1        | 8                | Converge  | 2        | 8          | Koto     | 1                | 0         | 127      | 127        | 0       | 127              | 0         | 127      | 0          | 127      |     |       |          |     |     |   |
|                  | 127       |          | piccolo2        | 2        | 9                | Shwimmer  | 2        | 9          | T. Koto  | 2                | 8         | 16       | 127        | 127     | 16               | 127       | 16       | 127        | 16       |     |       |          |     |     |   |
| 77               | 0         |          | Bottle recorder | 2        | 10               | Celstial  | 2        | 10         | Kanoon   | 2                | 16        | 0        | 127        | 127     | 0                | 127       | 0        | 127        | 0        |     |       |          |     |     |   |
|                  | 127       |          | recorder        | 1        | 127              | brssect1  | 1        | 127        | shakhchi | 2                | 127       | 0        | 127        | 127     | 0                | 127       | 0        | 127        | 0        |     |       |          |     |     |   |
| 78               | 0         | Shakhchi | 2               | 1        | Shanai           | 1         | 1        | whistle1   | 2        | 0                | 127       | 127      | 0          | 127     | 0                | 127       | 0        | 127        |          |     |       |          |     |     |   |
|                  | 127       | panpipes | 2               | 1        | Shanai2          | 1         | 1        | whistle2   | 1        | 0                | 127       | 127      | 0          | 127     | 0                | 127       | 0        | 127        |          |     |       |          |     |     |   |
| 79               | 0         | Whistle  | 1               | 8        | Pungi            | 1         | 8        | bottle     | 2        | 0                | 127       | 127      | 0          | 127     | 0                | 127       | 0        | 127        |          |     |       |          |     |     |   |
|                  | 127       | sax1     | 2               | 16       | Hichriki         | 2         | 16       | breath     | 2        | 0                | 127       | 127      | 0          | 127     | 0                | 127       | 0        | 127        |          |     |       |          |     |     |   |
| 80               | 0         | Ocarina  | 1               | 127      | breath           | 2         | 127      | breath     | 2        | 112              | 0         | 127      | 127        | 0       | 127              | 0         | 127      | 0          |          |     |       |          |     |     |   |
|                  | 127       | sax2     | 1               | 1        | breath           | 2         | 1        | breath     | 2        | 8                | 1         | 127      | 127        | 8       | 127              | 8         | 127      | 8          |          |     |       |          |     |     |   |

# XG Drum Voice List

**Bank Select MSB = Bank Number, LSB = 000**

Drum kit names in bold typeface are those that can be selected in the Disklavier.

| Bank      | 127   | 127     | 127              | 127                 | 127                  | 127             | 127             | 127                | 127                | 126             | 126              |                    |                        |                 |
|-----------|-------|---------|------------------|---------------------|----------------------|-----------------|-----------------|--------------------|--------------------|-----------------|------------------|--------------------|------------------------|-----------------|
| Program # | 1     | 2       | 9                | 17                  | 25                   | 26              | 33              | 41                 | 49                 | 1               | 2                |                    |                        |                 |
| Note#     | Note  | Key off | Alternate assign | <b>Standard Kit</b> | <b>Standard2 Kit</b> | <b>Room Kit</b> | <b>Rock Kit</b> | <b>Electro Kit</b> | <b>Analog Kit</b>  | <b>Jazz Kit</b> | <b>Brush Kit</b> | <b>Classic Kit</b> | SFX 1                  | SFX 2           |
| 13        | C# -1 |         | 3                | Surdo Mute          |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 14        | D -1  |         | 3                | Surdo Open          |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 15        | D# -1 |         |                  | Hi Q                |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 16        | E -1  |         |                  | Whip Slap           |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 17        | F -1  |         | 4                | Scratch Push        |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 18        | F# -1 |         | 4                | Scratch Pull        |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 19        | G -1  |         |                  | Finger Snap         |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 20        | G# -1 |         |                  | Click Noise         |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 21        | A -1  |         |                  | Metronome Click     |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 22        | A# -1 |         |                  | Metronome Bell      |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 23        | B -1  |         |                  | Seq Click L         |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 24        | C 0   |         |                  | Seq Click H         |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 25        | C# 0  |         |                  | Brush Tap           |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 26        | D 0   | O       |                  | Brush Swirl L       |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 27        | D# 0  |         |                  | Brush Slap          |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 28        | E 0   | O       |                  | Brush Swirl H       |                      |                 |                 | Reverse Cymbal     | Reverse Cymbal     |                 |                  |                    |                        |                 |
| 29        | F 0   | O       |                  | Snare Roll          | Snare Roll 2         |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 30        | F# 0  |         |                  | Castanet            |                      |                 |                 | Hi Q               | Hi Q               |                 |                  |                    |                        |                 |
| 31        | G 0   |         |                  | Snare L             | Snare L 2            |                 | SD Rock M       | Snare M            | SD Rock H          |                 | Brush Slap L     |                    |                        |                 |
| 32        | G# 0  |         |                  | Sticks              |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 33        | A 0   |         |                  | Bass Drum L         |                      |                 | Bass Drum M     | Bass Drum H 4      | Bass Drum M        |                 |                  | Bass Drum L2       |                        |                 |
| 34        | A# 0  |         |                  | Open Rim Shot       | Open Rim Shot 2      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 35        | B 0   |         |                  | Bass Drum M         | Bass Drum M 2        |                 | Bass Drum H 3   | BD Rock            | BD Analog L        |                 |                  | Gran Cassa         |                        |                 |
| 36        | C 1   |         |                  | Bass Drum H         | Bass Drum H 2        |                 | BD Rock         | BD Gate            | BD Analog H        | BD Jazz         | BD Soft          | Gran Cassa Mute    | Guitar Cutting Noise   | Dial Tone       |
| 37        | C# 1  |         |                  | Side Stick          |                      |                 |                 |                    | Analog Side Stick  |                 |                  |                    | Guitar Cutting Noise 2 | Door Creaking   |
| 38        | D 1   |         |                  | Snare M             | Snare M 2            | SD Room L       | SD Rock         | SD Rock L          | Analog Snare L     |                 | Brush Slap M     | Marching Sn M      |                        | Door Slam       |
| 39        | D# 1  |         |                  | Hand Clap           |                      |                 |                 |                    |                    |                 |                  |                    | String Slap            | Scratch         |
| 40        | E 1   |         |                  | Snare H             | Snare H 2            | SD Room H       | SD Rock Rim     | SD Rock H          | Analog Snare H     |                 | Brush Tap H      | Marching Sn H      |                        | Scratch 2       |
| 41        | F 1   |         |                  | Floor Tom L         |                      | Room Tom 1      | Rock Tom 1      | E Tom 1            | Analog Tom 1       | Jazz Tom 1      | Brush Tom 1      | Jazz Tom 1         |                        | Windchime       |
| 42        | F# 1  |         | 1                | Hi-Hat Closed       |                      |                 |                 |                    | Analog HH Closed 1 |                 |                  |                    |                        | Telephone Ring2 |
| 43        | G 1   |         |                  | Floor Tom H         |                      | Room Tom 2      | Rock Tom 2      | E Tom 2            | Analog Tom 2       | Jazz Tom 2      | Brush Tom 2      | Jazz Tom 2         |                        |                 |
| 44        | G# 1  |         | 1                | Hi-Hat Pedal        |                      |                 |                 |                    | Analog HH Closed 2 |                 |                  |                    |                        |                 |
| 45        | A 1   |         |                  | Low Tom             |                      | Room Tom 3      | Rock Tom 3      | E Tom 3            | Analog Tom 3       | Jazz Tom 3      | Brush Tom 3      | Jazz Tom 3         |                        |                 |
| 46        | A# 1  |         | 1                | Hi-Hat Open         |                      |                 |                 |                    | Analog HH Open     |                 |                  |                    |                        |                 |
| 47        | B 1   |         |                  | Mid Tom L           |                      | Room Tom 4      | Rock Tom 4      | E Tom 4            | Analog Tom 4       | Jazz Tom 4      | Brush Tom 4      | Jazz Tom 4         |                        |                 |
| 48        | C 2   |         |                  | Mid Tom H           |                      | Room Tom 5      | Rock Tom 5      | E Tom 5            | Analog Tom 5       | Jazz Tom 5      | Brush Tom 5      | Jazz Tom 5         |                        |                 |
| 49        | C# 2  |         |                  | Crash Cymbal 1      |                      |                 |                 |                    | Analog Cymbal      |                 |                  |                    | Hand Cym.Open L        |                 |
| 50        | D 2   |         |                  | High Tom            |                      | Room Tom 6      | Rock Tom 6      | E Tom 6            | Analog Tom 6       | Jazz Tom 6      | Brush Tom 6      | Jazz Tom 6         |                        |                 |
| 51        | D# 2  |         |                  | Ride Cymbal 1       |                      |                 |                 |                    |                    |                 |                  |                    | Hand Cym.Closed L      |                 |
| 52        | E 2   |         |                  | Chinese Cymbal      |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 53        | F 2   |         |                  | Ride Cymbal Cup     |                      |                 |                 |                    |                    |                 |                  |                    | FL Key Click           | Engine Start    |
| 54        | F# 2  |         |                  | Tambourine          |                      |                 |                 |                    |                    |                 |                  |                    |                        | Tire Screech    |
| 55        | G 2   |         |                  | Splash Cymbal       |                      |                 |                 |                    |                    |                 |                  |                    |                        | Car Passing     |
| 56        | G# 2  |         |                  | Cowbell             |                      |                 |                 |                    | Analog Cowbell     |                 |                  |                    |                        | Crash           |
| 57        | A 2   |         |                  | Crash Cymbal 2      |                      |                 |                 |                    |                    |                 |                  | Hand Cym.Open H    |                        | Siren           |
| 58        | A# 2  |         |                  | Vibraslap           |                      |                 |                 |                    |                    |                 |                  |                    |                        | Train           |
| 59        | B 2   |         |                  | Ride Cymbal 2       |                      |                 |                 |                    |                    |                 |                  | Hand Cym.Closed H  |                        | Jetplane        |
| 60        | C 3   |         |                  | Bongo H             |                      |                 |                 |                    |                    |                 |                  |                    |                        | Starship        |
| 61        | C# 3  |         |                  | Bongo L             |                      |                 |                 |                    |                    |                 |                  |                    |                        | Burst Noise     |
| 62        | D 3   |         |                  | Conga H Mute        |                      |                 |                 |                    | Analog Conga H     |                 |                  |                    |                        | Coaster         |
| 63        | D# 3  |         |                  | Conga H Open        |                      |                 |                 |                    | Analog Conga M     |                 |                  |                    |                        | SbMarine        |
| 64        | E 3   |         |                  | Conga L             |                      |                 |                 |                    | Analog Conga L     |                 |                  |                    |                        |                 |
| 65        | F 3   |         |                  | Timbale H           |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 66        | F# 3  |         |                  | Timbale L           |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 67        | G 3   |         |                  | Agogo H             |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 68        | G# 3  |         |                  | Agogo L             |                      |                 |                 |                    |                    |                 |                  |                    | Rain                   | Laughing        |
| 69        | A 3   |         |                  | Cabasa              |                      |                 |                 |                    |                    |                 |                  |                    | Thunder                | Screaming       |
| 70        | A# 3  |         |                  | Maracas             |                      |                 |                 |                    | Analog Maracas     |                 |                  |                    | Wind                   | Punch           |
| 71        | B 3   | O       |                  | Samba Whistle H     |                      |                 |                 |                    |                    |                 |                  |                    | Stream                 | Heartbeat       |
| 72        | C 4   | O       |                  | Samba Whistle L     |                      |                 |                 |                    |                    |                 |                  |                    | Bubble                 | Footsteps       |
| 73        | C# 4  |         |                  | Güiro Short         |                      |                 |                 |                    |                    |                 |                  |                    | Feed                   |                 |
| 74        | D 4   | O       |                  | Güiro Long          |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 75        | D# 4  |         |                  | Claves              |                      |                 |                 |                    | Analog Claves      |                 |                  |                    |                        |                 |
| 76        | E 4   |         |                  | Wood Block H        |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 77        | F 4   |         |                  | Wood Block L        |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 78        | F# 4  |         |                  | Cuica Mute          |                      |                 |                 | Scratch Push       | Scratch Push       |                 |                  |                    |                        |                 |
| 79        | G 4   |         |                  | Cuica Open          |                      |                 |                 | Scratch Pull       | Scratch Pull       |                 |                  |                    |                        |                 |
| 80        | G# 4  |         | 2                | Triangle Mute       |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 81        | A 4   |         | 2                | Triangle Open       |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 82        | A# 4  |         |                  | Shaker              |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 83        | B 4   |         |                  | Jingle Bell         |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 84        | C 5   |         |                  | Bell Tree           |                      |                 |                 |                    |                    |                 |                  |                    | Dog                    | Machine Gun     |
| 85        | C# 5  |         |                  |                     |                      |                 |                 |                    |                    |                 |                  |                    | Horse Gallop           | Laser Gun       |
| 86        | D 5   |         |                  |                     |                      |                 |                 |                    |                    |                 |                  |                    | Bird 2                 | Explosion       |
| 87        | D# 5  |         |                  |                     |                      |                 |                 |                    |                    |                 |                  |                    |                        | FireWork        |
| 88        | E 5   |         |                  |                     |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 89        | F 5   |         |                  |                     |                      |                 |                 |                    |                    |                 |                  |                    |                        |                 |
| 90        | F# 5  |         |                  |                     |                      |                 |                 |                    |                    |                 |                  |                    | Ghost                  |                 |
| 91        | G 5   |         |                  |                     |                      |                 |                 |                    |                    |                 |                  |                    | Maou                   |                 |

☐ : Same as Standard kit  
 ☐ : No sound

# TG300B Drum Voice List

| Program # | Note# | Note | Alternate assign | 1               | 9          | 17         | 25             | 26                 | 33         | 41          | 49            | 57                  | 128           |
|-----------|-------|------|------------------|-----------------|------------|------------|----------------|--------------------|------------|-------------|---------------|---------------------|---------------|
|           |       |      |                  | Standard Kit    | Room Kit   | Power Kit  | Electro Kit    | Analog Kit         | Jazz Kit   | Brush Kit   | Orchestra Kit | SFX Set             | C/M Kit       |
| 25        | C#    | 0    |                  | Snare Roll      |            |            |                |                    |            |             |               |                     |               |
| 26        | D     | 0    |                  | Finger Snap     |            |            |                |                    |            |             |               |                     |               |
| 27        | D#    | 0    |                  | Hi Q            |            |            |                |                    |            |             | Hi-Hat Closed |                     |               |
| 28        | E     | 0    |                  | Whip Slap       |            |            |                |                    |            |             | Hi-Hat Pedal  |                     |               |
| 29        | F     | 0    | 7                | Scratch Push    |            |            |                |                    |            |             | Hi-Hat Open   |                     |               |
| 30        | F#    | 0    | 7                | Scratch Pull    |            |            |                |                    |            |             | Ride Cymbal 1 |                     |               |
| 31        | G     | 0    |                  | Sticks          |            |            |                |                    |            |             |               |                     |               |
| 32        | G#    | 0    |                  | Click Noise     |            |            |                |                    |            |             |               |                     |               |
| 33        | A     | 0    |                  | Metronome Click |            |            |                |                    |            |             |               |                     |               |
| 34        | A#    | 0    |                  | Metronome Bell  |            |            |                |                    |            |             |               |                     |               |
| 35        | B     | 0    |                  | Bass Drum M     |            |            |                |                    |            |             | BD Jazz       |                     |               |
| 36        | C     | 1    |                  | Bass Drum H     |            | BD Power   | BD Electronic  | BD Analog H        | BD Jazz    | BD Soft     | Gran Cassa    |                     |               |
| 37        | C#    | 1    |                  | Side Stick      |            |            |                | Analog Side Stick  |            |             |               |                     |               |
| 38        | D     | 1    |                  | Snare M         |            | SD Power   | SD Electronic  | Analog Snare L     |            | Brush Tap   | Concert SD    |                     |               |
| 39        | D#    | 1    |                  | Hand Clap       |            |            |                |                    |            | Brush Slap  | Castanet      | High-Q              |               |
| 40        | E     | 1    |                  | Snare H         |            |            | SD Power       |                    |            | Brush Swirl | Concert SD    | Slap                | SD Electro    |
| 41        | F     | 1    |                  | Floor Tom L     | Room Tom 1 | Room Tom 1 | E Tom 1        | Analog Tom 1       | Jazz Tom 1 | Jazz Tom 1  | Timpani F     | Scratch Push        |               |
| 42        | F#    | 1    | 1                | Hi-Hat Closed   |            |            |                | Analog HH Closed 1 |            |             | Timpani F#    | Scratch Pull        |               |
| 43        | G     | 1    |                  | Floor Tom H     | Room Tom 2 | Room Tom 2 | E Tom 2        | Analog Tom 2       | Jazz Tom 2 | Jazz Tom 2  | Timpani G     | Sticks              |               |
| 44        | G#    | 1    | 1                | Hi-Hat Pedal    |            |            |                | Analog HH Closed 2 |            |             | Timpani G#    | Square Click        | Hi-Hat Open 1 |
| 45        | A     | 1    |                  | Low Tom         | Room Tom 3 | Room Tom 3 | E Tom 3        | Analog Tom 3       | Jazz Tom 3 | Jazz Tom 3  | Timpani A     | Metronome Click     |               |
| 46        | A#    | 1    | 1                | Hi-Hat Open     |            |            |                | Analog HH Open     |            |             | Timpani A#    | Metronome Bell      | Hi-Hat Open 2 |
| 47        | B     | 1    |                  | Mid Tom L       | Room Tom 4 | Room Tom 4 | E Tom 4        | Analog Tom 4       | Jazz Tom 4 | Jazz Tom 4  | Timpani B     | Guitar Fret Noise   |               |
| 48        | C     | 2    |                  | Mid Tom H       | Room Tom 5 | Room Tom 5 | E Tom 5        | Analog Tom 5       | Jazz Tom 5 | Jazz Tom 5  | Timpani C     | Guitar Cutting Down |               |
| 49        | C#    | 2    |                  | Crash Cymbal 1  |            |            |                | Analog Cymbal      |            |             | Timpani C#    | Guitar Cutting Up   |               |
| 50        | D     | 2    |                  | High Tom        | Room Tom 6 | Room Tom 6 | E Tom 6        | Analog Tom 6       | Jazz Tom 6 | Jazz Tom 6  | Timpani D     | Ac Bass Slap        |               |
| 51        | D#    | 2    |                  | Ride Cymbal 1   |            |            |                |                    |            |             | Timpani D#    | FL Key Click        |               |
| 52        | E     | 2    |                  | Chinese Cymbal  |            |            | Reverse Cymbal |                    |            |             | Timpani E     | Laughing            |               |
| 53        | F     | 2    |                  | Ride Cymbal Cup |            |            |                |                    |            |             | Timpani F     | Screaming           |               |
| 54        | F#    | 2    |                  | Tambourine      |            |            |                |                    |            |             |               | Punch               |               |
| 55        | G     | 2    |                  | Splash Cymbal   |            |            |                |                    |            |             |               | Heartbeat           |               |
| 56        | G#    | 2    |                  | Cowbell         |            |            |                | Analog Cowbell     |            |             |               | Footsteps 1         |               |
| 57        | A     | 2    |                  | Crash Cymbal 2  |            |            |                |                    |            |             | Hand Cym.1    | Footsteps 2         |               |
| 58        | A#    | 2    |                  | Vibraslap       |            |            |                |                    |            |             |               | Applause            |               |
| 59        | B     | 2    |                  | Ride Cymbal 2   |            |            |                |                    |            |             | Hand Cym.2    | Door Creaking       |               |
| 60        | C     | 3    |                  | Bongo H         |            |            |                |                    |            |             |               | Door Slam           |               |
| 61        | C#    | 3    |                  | Bongo L         |            |            |                |                    |            |             |               | Scratch             |               |
| 62        | D     | 3    |                  | Conga H Mute    |            |            |                | Analog Conga H     |            |             |               | Windchime           |               |
| 63        | D#    | 3    |                  | Conga H Open    |            |            |                | Analog Conga M     |            |             |               | Engine Start        |               |
| 64        | E     | 3    |                  | Conga L         |            |            |                | Analog Conga L     |            |             |               | Tire Screech        |               |
| 65        | F     | 3    |                  | Timbale H       |            |            |                |                    |            |             |               | Car Passing         |               |
| 66        | F#    | 3    |                  | Timbale L       |            |            |                |                    |            |             |               | Crash               |               |
| 67        | G     | 3    |                  | Agogo H         |            |            |                |                    |            |             |               | Siren               |               |
| 68        | G#    | 3    |                  | Agogo L         |            |            |                |                    |            |             |               | Train               |               |
| 69        | A     | 3    |                  | Cabasa          |            |            |                |                    |            |             |               | Jetplane            |               |
| 70        | A#    | 3    |                  | Maracas         |            |            |                | Analog Maracas     |            |             |               | Helicopter          |               |
| 71        | B     | 3    | 2                | Samba Whistle H |            |            |                |                    |            |             |               | Starship            |               |
| 72        | C     | 4    | 2                | Samba Whistle L |            |            |                |                    |            |             |               | Gunshot             |               |
| 73        | C#    | 4    | 3                | Guiro Short     |            |            |                |                    |            |             |               | Machine Gun         | Vibraslap     |
| 74        | D     | 4    | 3                | Guiro Long      |            |            |                |                    |            |             |               | Laser Gun           |               |
| 75        | D#    | 4    |                  | Claves          |            |            |                | Analog Claves      |            |             |               | Explosion           |               |
| 76        | E     | 4    |                  | Wood Block H    |            |            |                |                    |            |             |               | Dog                 | Laughing      |
| 77        | F     | 4    |                  | Wood Block L    |            |            |                |                    |            |             |               | Horse Gallop        | Screaming     |
| 78        | F#    | 4    | 4                | Cuica Mute      |            |            |                |                    |            |             |               | Bird Tweet          | Punch         |
| 79        | G     | 4    | 4                | Cuica Open      |            |            |                |                    |            |             |               | Rain                | Heartbeat     |
| 80        | G#    | 4    | 5                | Triangle Mute   |            |            |                |                    |            |             |               | Thunder             | Footsteps 1   |
| 81        | A     | 4    | 5                | Triangle Open   |            |            |                |                    |            |             |               | Wind                | Footsteps 2   |
| 82        | A#    | 4    |                  | Shaker          |            |            |                |                    |            |             |               | Seashore            | Applause      |
| 83        | B     | 4    |                  | Jingle Bell     |            |            |                |                    |            |             |               | Stream              | Door Creaking |
| 84        | C     | 5    |                  | Bell Tree       |            |            |                |                    |            |             |               | Bubble              | Door Slam     |
| 85        | C#    | 5    |                  | Castanet        |            |            |                |                    |            |             |               |                     | Scratch       |
| 86        | D     | 5    | 6                | Surdo Mute      |            |            |                |                    |            |             |               |                     | Windchime     |
| 87        | D#    | 5    | 6                | Surdo Open      |            |            |                |                    |            |             |               |                     | Engine Start  |
| 88        | E     | 5    |                  |                 |            |            |                |                    |            |             | Applause      |                     | Tire Screech  |
| 89        | F     | 5    |                  |                 |            |            |                |                    |            |             |               |                     | Car Passing   |
| 90        | F#    | 5    |                  |                 |            |            |                |                    |            |             |               |                     | Crash         |
| 91        | G     | 5    |                  |                 |            |            |                |                    |            |             |               |                     | Siren         |
| 92        | G#    | 5    |                  |                 |            |            |                |                    |            |             |               |                     | Train         |
| 93        | A     | 5    |                  |                 |            |            |                |                    |            |             |               |                     | Jetplain      |
| 94        | A#    | 5    |                  |                 |            |            |                |                    |            |             |               |                     | Helicopter    |
| 95        | B     | 5    |                  |                 |            |            |                |                    |            |             |               |                     | Starship      |
| 96        | C     | 6    |                  |                 |            |            |                |                    |            |             |               |                     | Gunshot       |
| 97        | C#    | 6    |                  |                 |            |            |                |                    |            |             |               |                     | Machine Gun   |
| 98        | D     | 6    |                  |                 |            |            |                |                    |            |             |               |                     | Laser Gun     |
| 99        | D#    | 6    |                  |                 |            |            |                |                    |            |             |               |                     | Explosion     |
| 100       | E     | 6    |                  |                 |            |            |                |                    |            |             |               |                     | Dog           |
| 101       | F     | 6    |                  |                 |            |            |                |                    |            |             |               |                     | Horse Gallop  |
| 102       | F#    | 6    |                  |                 |            |            |                |                    |            |             |               |                     | Bird Tweet    |
| 103       | G     | 6    |                  |                 |            |            |                |                    |            |             |               |                     | Rain          |
| 104       | G#    | 6    |                  |                 |            |            |                |                    |            |             |               |                     | Thunder       |
| 105       | A     | 6    |                  |                 |            |            |                |                    |            |             |               |                     | Wind          |
| 106       | A#    | 6    |                  |                 |            |            |                |                    |            |             |               |                     | Seashore      |
| 107       | B     | 6    |                  |                 |            |            |                |                    |            |             |               |                     | Stream        |
| 108       | C     | 7    |                  |                 |            |            |                |                    |            |             |               |                     | Bubble        |

: Same as Standard kit  
 : No sound

## Effect Type List

| Exclusive        |     | Effect Type       | Description  |
|------------------|-----|-------------------|--|
| MSB              | LSB |                   |  |
| <b>REVERB</b>    |     |                   |  |
| 00               | 00  | NO EFFECT         | Effect turned off.   |
| 01               | 00  | HALL1             | Reverb simulating the resonance of a hall.   |
| 01               | 01  | HALL2             | Reverb simulating the resonance of a hall.   |
| 02               | 00  | ROOM1             | Reverb simulating the resonance of a room.   |
| 02               | 01  | ROOM2             | Reverb simulating the resonance of a room.   |
| 02               | 02  | ROOM3             | Reverb simulating the resonance of a room.   |
| 03               | 00  | STAGE1            | Reverb appropriate for a solo instrument.  |
| 03               | 01  | STAGE2            | Reverb appropriate for a solo instrument.  |
| 04               | 00  | PLATE             | Reverb simulating a metal plate reverb unit.   |
| 10               | 00  | WHITE ROOM        | A unique short reverb with a bit of initial delay.   |
| 11               | 00  | TUNNEL            | Simulation of a tunnel space expanding to left and right.  |
| 13               | 00  | BASEMENT          | A bit of initial delay followed by reverb with a unique resonance.   |
| <b>CHORUS</b>    |     |                   |  |
| 00               | 00  | NO EFFECT         | Effect turned off.   |
| 41               | 00  | CHORUS1           | Conventional chorus program that adds natural spaciousness.  |
| 41               | 01  | CHORUS2           | Conventional chorus program that adds natural spaciousness.  |
| 41               | 02  | CHORUS3           | Conventional chorus program that adds natural spaciousness.  |
| 41               | 08  | CHORUS4           | Chorus with stereo input. The pan setting specified for the Part will also apply to the effect sound.            |
| 42               | 00  | CELESTE1          | A 3-phase LFO adds modulation and spaciousness to the sound.   |
| 42               | 01  | CELESTE2          | A 3-phase LFO adds modulation and spaciousness to the sound.   |
| 42               | 02  | CELESTE3          | A 3-phase LFO adds modulation and spaciousness to the sound.   |
| 42               | 08  | CELESTE4          | Celeste with stereo input. The pan setting specified for the Part will also apply to the effect sound.           |
| 43               | 00  | FLANGER1          | Adds a jet-airplane effect to the sound.   |
| 43               | 01  | FLANGER2          | Adds a jet-airplane effect to the sound.   |
| 43               | 08  | FLANGER3          | Adds a jet-airplane effect to the sound.   |
| <b>VARIATION</b> |     |                   |  |
| 00               | 00  | NO EFFECT         | Effect turned off.   |
| 01               | 00  | HALL1             | Reverb simulating the resonance of a hall.   |
| 01               | 01  | HALL2             | Reverb simulating the resonance of a hall.   |
| 02               | 00  | ROOM1             | Reverb simulating the resonance of a room.   |
| 02               | 01  | ROOM2             | Reverb simulating the resonance of a room.   |
| 02               | 02  | ROOM3             | Reverb simulating the resonance of a room.   |
| 03               | 00  | STAGE1            | Reverb appropriate for a solo instrument.  |
| 03               | 01  | STAGE2            | Reverb appropriate for a solo instrument.  |
| 04               | 00  | PLATE             | Reverb simulating a metal plate reverb unit.   |
| 05               | 00  | DELAY L, C, R     | A program that creates three delay sounds; L, R, and C (center).   |
| 06               | 00  | DELAY L, R        | A program that creates two delay sounds; L and R. Two feedback delays are provided.                              |
| 07               | 00  | ECHO              | Two delays (L and R) and independent feedback delays for L and R.  |
| 08               | 00  | CROSS DELAY       | A program that crosses the feedback of two delays.   |
| 09               | 00  | EARLY REF1        | An effect that produces only the early reflection component of reverb.   |
| 09               | 01  | EARLY REF2        | An effect that produces only the early reflection component of reverb.   |
| 0A               | 00  | GATE REVERB       | A simulation of gated reverb.  |
| 0B               | 00  | REVERSE GATE      | A program that simulates gated reverb played backwards.  |
| 14               | 00  | KARAOKE 1         | A delay with feedback of the same types as used for karaoke reverb.  |
| 14               | 01  | KARAOKE 2         | A delay with feedback of the same types as used for karaoke reverb.  |
| 14               | 02  | KARAOKE 3         | A delay with feedback of the same types as used for karaoke reverb.  |
| 41               | 00  | CHORUS1           | Conventional chorus program that add natural spaciousness.   |
| 41               | 01  | CHORUS2           | Conventional chorus program that adds natural spaciousness.  |
| 41               | 02  | CHORUS3           | Conventional chorus program that adds natural spaciousness.  |
| 41               | 08  | CHORUS4           | Chorus with stereo input.  |
| 42               | 00  | CELESTE1          | A 3-phase LFO adds modulation and spaciousness to the sound.   |
| 42               | 01  | CELESTE2          | A 3-phase LFO adds modulation and spaciousness to the sound.   |
| 42               | 02  | CELESTE3          | A 3-phase LFO adds modulation and spaciousness to the sound.   |
| 42               | 08  | CELESTE4          | Celeste with stereo input.   |
| 43               | 00  | FLANGER1          | Adds a jet-airplane effect to the sound.   |
| 43               | 01  | FLANGER2          | Adds a jet-airplane effect to the sound.   |
| 43               | 08  | FLANGER3          | Adds a jet-airplane effect to the sound.   |
| 44               | 00  | SYMPHONIC         | A multi-phase version of CELESTE.  |
| 45               | 00  | ROTARY SPEAKER    | A simulation of a rotary speaker. You can use AC1 (assignable controller) etc. to control the speed of rotation. |
| 46               | 00  | TREMOLLO          | An effect that cyclically modulates the volume.  |
| 47               | 00  | AUTO PAN          | A program that cyclically moves that sound image to left and right, front and back.                              |
| 48               | 00  | PHASER1           | Cyclically changes the phase to add modulation to the sound.   |
| 48               | 08  | PHASER2           | Phaser with stereo input.  |
| 49               | 00  | DISTORTION        | Adds a sharp-edged distortion to the sound.  |
| 4A               | 00  | OVER DRIVE        | Adds mild distortion to the sound.   |
| 4B               | 00  | AMP SIMULATOR     | A simulation of a guitar amp.  |
| 4C               | 00  | 3BAND EQ (MONO)   | A mono EQ with adjustable LOW, MID, and HIGH equalizing.   |
| 4D               | 00  | 2BAND EQ (STEREO) | A stereo EQ with adjustable LOW and HIGH. Ideal for drum Parts.  |
| 4E               | 00  | AUTO WAH (LFO)    | Cyclically modulates the center frequency of a wah filter. With an AC1 etc. this can function as a pedal wah.    |
| 40               | 00  | THRU              | Bypass without applying any effect.  |

\* MSB, LSB is represented in hexadecimal.

\* LCB=0 is the basic effect type.

# Effect Parameter List

| No   | Parameter         | Range               | Value  | See Table | Control |
|--|-------------------|---------------------|--------|-----------|---------|
| <b>HALL1, HALL2, ROOM 1, 2, 3, STAGE 1, 2, PLATE</b> |                   |                     |        |           |         |
| 1  | Reverb Time       | 0.3~30.0s           | 0-69   | table#4   |         |
| 2  | Diffusion         | 0~10                | 0-10   |           |         |
| 3  | Initial Delay     | 0~63                | 0-63   | table#5   |         |
| 4  | HPF Cutoff        | Thru~8.0kHz         | 0-52   | table#3   |         |
| 5  | LPF Cutoff        | 1.0k~Thru           | 34-60  | table#3   |         |
| 6  |                   |                     |        |           |         |
| 7  |                   |                     |        |           |         |
| 8  |                   |                     |        |           |         |
| 9  |                   |                     |        |           |         |
| 10   | Dry/Wet           | D63>W~D=W~D<W63     | 1-127  |           | •       |
| 11   | Rev Delay         | 0~63                | 0-63   | table#5   |         |
| 12   | Density           | 0~3                 | 0-3    |           |         |
| 13   | Er/Rev Balance    | E63>R ~ E=R ~ E>R63 | 1-127  |           |         |
| 14   |                   |                     |        |           |         |
| 15   | Feedback Level    | -63~+63             | 1-127  |           |         |
| 16   |                   |                     |        |           |         |
| <b>WHITE ROOM, TUNNEL, BASEMENT</b>                  |                   |                     |        |           |         |
| 1  | Reverb Time       | 0.3~30.0s           | 0-69   | table#4   |         |
| 2  | Diffusion         | 0~10                | 0-10   |           |         |
| 3  | Initial Delay     | 0~63                | 0-63   | table#5   |         |
| 4  | HPF Cutoff        | Thru~8.0kHz         | 0-52   | table#3   |         |
| 5  | LPF Cutoff        | 1.0k~Thru           | 34-60  | table#3   |         |
| 6  | Width             | 0.5~10.2m           | 0-37   | table#11  |         |
| 7  | Height            | 0.5~20.2m           | 0-73   | table#11  |         |
| 8  | Depth             | 0.5~30.2m           | 0-104  | table#11  |         |
| 9  | Wall Vary         | 0~30                | 0-30   |           |         |
| 10   | Dry/Wet           | D63>W~D=W~D<W63     | 1-127  |           | •       |
| 11   | Rev Delay         | 0~63                | 0-63   | table#5   |         |
| 12   | Density           | 0~3                 | 0-3    |           |         |
| 13   | Er/Rev Balance    | E63>R~E=R~E>R63     | 1-127  |           |         |
| 14   |                   |                     |        |           |         |
| 15   | Feedback Level    | -63~+63             | 1-127  |           |         |
| 16   |                   |                     |        |           |         |
| <b>DELAY L, C, R</b>                                 |                   |                     |        |           |         |
| 1  | Lch Delay         | 0.1~715.0ms         | 1-7150 |           |         |
| 2  | Rch Delay         | 0.1~715.0ms         | 1-7150 |           |         |
| 3  | Cch Delay         | 0.1~715.0ms         | 1-7150 |           |         |
| 4  | Feedback Delay    | 0.1~715.0ms         | 1-7150 |           |         |
| 5  | Feedback Level    | -63~+63             | 1-127  |           |         |
| 6  | Cch Level         | 0~127               | 0-127  |           |         |
| 7  | High Damp         | 0.1~1.0             | 1-10   |           |         |
| 8  |                   |                     |        |           |         |
| 9  |                   |                     |        |           |         |
| 10   | Dry/Wet           | D63>W~D=W~D<W63     | 1-127  |           | •       |
| 11   |                   |                     |        |           |         |
| 12   |                   |                     |        |           |         |
| 13   | EQ Low Frequency  | 50Hz~2.0kHz         | 8-40   | table#3   |         |
| 14   | EQ Low Gain       | -12~+12dB           | 52-76  |           |         |
| 15   | EQ High Frequency | 500Hz~16.0kHz       | 28-58  | table#3   |         |
| 16   | EQ High Gain      | -12~+12dB           | 52-76  |           |         |
| <b>DELAY L, R</b>                                    |                   |                     |        |           |         |
| 1  | Lch Delay         | 0.1~715.0ms         | 1-7150 |           |         |
| 2  | Rch Delay         | 0.1~715.0ms         | 1-7150 |           |         |
| 3  | Feedback Delay1   | 0.1~715.0ms         | 1-7150 |           |         |
| 4  | Feedback Delay2   | 0.1~715.0ms         | 1-7150 |           |         |
| 5  | Feedback Level    | -63~+63             | 1-127  |           |         |
| 6  | High Damp         | 0.1~1.0             | 1-10   |           |         |
| 7  |                   |                     |        |           |         |
| 8  |                   |                     |        |           |         |
| 9  |                   |                     |        |           |         |
| 10   | Dry/Wet           | D63>W~D=W~D<W63     | 1-127  |           | •       |
| 11   |                   |                     |        |           |         |
| 12   |                   |                     |        |           |         |
| 13   | EQ Low Frequency  | 50Hz~2.0kHz         | 8-40   | table#3   |         |
| 14   | EQ Low Gain       | -12~+12dB           | 52-76  |           |         |
| 15   | EQ High Frequency | 500Hz~16.0kHz       | 28-58  | table#3   |         |
| 16   | EQ High Gain      | -12~+12dB           | 52-76  |           |         |

| No                               | Parameter          | Range                        | Value  | See Table | Control |
|----------------------------------|--------------------|------------------------------|--------|-----------|---------|
| <b>ECHO</b>                      |                    |                              |        |           |         |
| 1                                | Lch Delay1         | 0.1~355.0ms                  | 1-3350 |           |         |
| 2                                | Lch Feedback Level | -63~+63                      | 1-127  |           |         |
| 3                                | Rch Delay1         | 0.1~355.0ms                  | 1-3350 |           |         |
| 4                                | Rch Feedback Level | -63~+63                      | 1-127  |           |         |
| 5                                | High Damp          | 0.1~1.0                      | 1-10   |           |         |
| 6                                | Lch Delay2         | 0.1~355.0ms                  | 1-3350 |           |         |
| 7                                | Rch Delay2         | 0.1~355.0ms                  | 1-3350 |           |         |
| 8                                | Delay2 Level       | 0~127                        | 0-127  |           |         |
| 9                                |                    |                              |        |           |         |
| 10                               | Dry/Wet            | D63>W~D=W~D<W63              | 1-127  |           | •       |
| 11                               |                    |                              |        |           |         |
| 12                               |                    |                              |        |           |         |
| 13                               | EQ Low Frequency   | 50Hz~2.0kHz                  | 8-40   | table#3   |         |
| 14                               | EQ Low Gain        | -12~+12dB                    | 52-76  |           |         |
| 15                               | EQ High Frequency  | 500Hz~16.0kHz                | 28-58  | table#3   |         |
| 16                               | EQ High Gain       | -12~+12dB                    | 52-76  |           |         |
| <b>CROSS DELAY</b>               |                    |                              |        |           |         |
| 1                                | L->R Delay         | 0.1~355.0ms                  | 1-3350 |           |         |
| 2                                | R->L Delay         | 0.1~355.0ms                  | 1-3350 |           |         |
| 3                                | Feedback Level     | -63~+63                      | 1-127  |           |         |
| 4                                | Input Select       | L, R, L&R                    | 0-2    |           |         |
| 5                                | High Damp          | 0.1~1.0                      | 1-10   |           |         |
| 6                                |                    |                              |        |           |         |
| 7                                |                    |                              |        |           |         |
| 8                                |                    |                              |        |           |         |
| 9                                |                    |                              |        |           |         |
| 10                               | Dry/Wet            | D63>W~D=W~D<W63              | 1-127  |           | •       |
| 11                               |                    |                              |        |           |         |
| 12                               |                    |                              |        |           |         |
| 13                               | EQ Low Frequency   | 50Hz~2.0kHz                  | 8-40   | table#3   |         |
| 14                               | EQ Low Gain        | -12~+12dB                    | 52-76  |           |         |
| 15                               | EQ High Frequency  | 500Hz~16.0kHz                | 28-58  | table#3   |         |
| 16                               | EQ High Gain       | -12~+12dB                    | 52-76  |           |         |
| <b>EARLY REF1, EARLY REF2</b>    |                    |                              |        |           |         |
| 1                                | Type               | S-H, L-H, Rdm, Rvs, Plt, Spr | 0-5    |           |         |
| 2                                | Room Size          | 0.1~7.0                      | 0-44   | table#6   |         |
| 3                                | Diffusion          | 0~10                         | 0-10   |           |         |
| 4                                | Initial Delay      | 0~63                         | 0-63   | table#5   |         |
| 5                                | Feedback Level     | -63~+63                      | 1-127  |           |         |
| 6                                | HPF Cutoff         | Thru~8.0kHz                  | 0-52   |           |         |
| 7                                | LPF Cutoff         | 1.0k~Thru                    | 34-60  |           |         |
| 8                                |                    |                              |        |           |         |
| 9                                |                    |                              |        |           |         |
| 10                               | Dry/Wet            | D63>W~D=W~D<W63              | 1-127  |           | •       |
| 11                               | Liveness           | 0~10                         | 0-10   |           |         |
| 12                               | Density            | 0~3                          | 0-3    |           |         |
| 13                               | High Damp          | 0.1~1.0                      | 1-10   |           |         |
| 14                               |                    |                              |        |           |         |
| 15                               |                    |                              |        |           |         |
| 16                               |                    |                              |        |           |         |
| <b>GATE REVERB, REVERSE GATE</b> |                    |                              |        |           |         |
| 1                                | Type               | TypeA, TypeB                 | 0-1    |           |         |
| 2                                | Room Size          | 0.1~7.0                      | 0-44   | table#6   |         |
| 3                                | Diffusion          | 0~10                         | 0-10   |           |         |
| 4                                | Initial Delay      | 0~63                         | 0-63   | table#5   |         |
| 5                                | Feedback Level     | -63~+63                      | 1-127  |           |         |
| 6                                | HPF Cutoff         | Thru~8.0kHz                  | 0-52   |           |         |
| 7                                | LPF Cutoff         | 1.0k~Thru                    | 34-60  |           |         |
| 8                                |                    |                              |        |           |         |
| 9                                |                    |                              |        |           |         |
| 10                               | Dry/Wet            | D63>W~D=W~D<W63              | 1-127  |           | •       |
| 11                               | Liveness           | 0~10                         | 0-10   |           |         |
| 12                               | Density            | 0~3                          | 0-3    |           |         |
| 13                               | High Damp          | 0.1~1.0                      | 1-10   |           |         |
| 14                               |                    |                              |        |           |         |
| 15                               |                    |                              |        |           |         |
| 16                               |                    |                              |        |           |         |

• : Can be controlled by AC1 (Assignable Controller 1)  
 No.\* : These numbers correspond to the Parameter Suffix numbers in <Table 1-3>  
 See Table\*\* : Refer to "Effect Data Assign Table"

| No   | Parameter            | Range           | Value | See Table | Control |
|--|----------------------|-----------------|-------|-----------|---------|
| <b>KARAOKE 1, 2, 3</b>                       |                      |                 |       |           |         |
| 1  | Delay Time           | 0~127           | 0-127 | table#7   |         |
| 2  | Feedback Level       | -63~+63         | 1-127 |           |         |
| 3  | HPF Cutoff           | Thru~8.0kHz     | 0-52  |           |         |
| 4  | LPF Cutoff           | 1.0k~Thru       | 34-60 |           |         |
| 5  |                      |                 |       |           |         |
| 6  |                      |                 |       |           |         |
| 7  |                      |                 |       |           |         |
| 8  |                      |                 |       |           |         |
| 9  |                      |                 |       |           |         |
| 10   | Dry/Wet              | D63>W~D=W~D<W63 | 1-127 |           | •       |
| 11   |                      |                 |       |           |         |
| 12   |                      |                 |       |           |         |
| 13   |                      |                 |       |           |         |
| 14   |                      |                 |       |           |         |
| 15   |                      |                 |       |           |         |
| 16   |                      |                 |       |           |         |
| <b>CHORUS 1, 2, 3, 4, CELESTE 1, 2, 3, 4</b> |                      |                 |       |           |         |
| 1  | LFO Frequency        | 0.00~39.7Hz     | 0-127 | table#1   |         |
| 2  | LFO PM Depth         | 0~127           | 0-127 |           |         |
| 3  | Feedback Level       | -63~+63         | 1-127 |           |         |
| 4  | Delay Offset         | 0~127           | 0-127 | table#2   |         |
| 5  |                      |                 |       |           |         |
| 6  | EQ Low Frequency     | 50Hz~2.0kHz     | 8-40  | table#3   |         |
| 7  | EQ Low Gain          | -12~+12dB       | 52-76 |           |         |
| 8  | EQ High Frequency    | 500Hz~16.0kHz   | 28-58 | table#3   |         |
| 9  | EQ High Gain         | -12~+12dB       | 52-76 |           |         |
| 10   | Dry/Wet              | D63>W~D=W~D<W63 | 1-127 |           | •       |
| 11   |                      |                 |       |           |         |
| 12   |                      |                 |       |           |         |
| 13   |                      |                 |       |           |         |
| 14   |                      |                 |       |           |         |
| 15   | Input Mode           | mono/stereo     | 0-1   |           |         |
| 16   |                      |                 |       |           |         |
| <b>FLANGER 1, 2, 3</b>                       |                      |                 |       |           |         |
| 1  | LFO Frequency        | 0.00~39.7Hz     | 0-127 | table#1   |         |
| 2  | LFO Depth            | 0~127           | 0-127 |           |         |
| 3  | Feedback Level       | -63~+63         | 1-127 |           |         |
| 4  | Delay Offset         | 0~63            | 0-63  | table#2   |         |
| 5  |                      |                 |       |           |         |
| 6  | EQ Low Frequency     | 50Hz~2.0kHz     | 8-40  | table#3   |         |
| 7  | EQ Low Gain          | -12~+12dB       | 52-76 |           |         |
| 8  | EQ High Frequency    | 500Hz~16.0kHz   | 28-58 | table#3   |         |
| 9  | EQ High Gain         | -12~+12dB       | 52-76 |           |         |
| 10   | Dry/Wet              | D63>W~D=W~D<W63 | 1-127 |           | •       |
| 11   |                      |                 |       |           |         |
| 12   |                      |                 |       |           |         |
| 13   |                      |                 |       |           |         |
| 14   | LFO Phase Difference | -180~+180deg    | 4-124 |           |         |
| 15   |                      |                 |       |           |         |
| 16   |                      |                 |       |           |         |
| <b>SYMPHONIC</b>                             |                      |                 |       |           |         |
| 1  | LFO Frequency        | 0.00~39.7Hz     | 0-127 | table#1   |         |
| 2  | LFO Depth            | 0~127           | 0-127 |           |         |
| 3  | Delay Offset         | 0~127           | 0-127 | table#2   |         |
| 4  |                      |                 |       |           |         |
| 5  |                      |                 |       |           |         |
| 6  | EQ Low Frequency     | 50Hz~2.0kHz     | 8-40  | table#3   |         |
| 7  | EQ Low Gain          | -12~+12dB       | 52-76 |           |         |
| 8  | EQ High Frequency    | 500Hz~16.0kHz   | 28-58 | table#3   |         |
| 9  | EQ High Gain         | -12~+12dB       | 52-76 |           |         |
| 10   | Dry/Wet              | D63>W~D=W~D<W63 | 1-127 |           | •       |
| 11   |                      |                 |       |           |         |
| 12   |                      |                 |       |           |         |
| 13   |                      |                 |       |           |         |
| 14   |                      |                 |       |           |         |
| 15   |                      |                 |       |           |         |
| 16   |                      |                 |       |           |         |

| No                      | Parameter         | Range                                | Value | See Table | Control |
|-------------------------|-------------------|--------------------------------------|-------|-----------|---------|
| <b>ROTARY SPEAKER</b>   |                   |                                      |       |           |         |
| 1                       | LFO Frequency     | 0.00~39.7Hz                          | 0-127 | table#1   | •       |
| 2                       | LFO Depth         | 0~127                                | 0-127 |           |         |
| 3                       |                   |                                      |       |           |         |
| 4                       |                   |                                      |       |           |         |
| 5                       |                   |                                      |       |           |         |
| 6                       | EQ Low Frequency  | 50Hz~2.0kHz                          | 8-40  | table#3   |         |
| 7                       | EQ Low Gain       | -12~+12dB                            | 52-76 |           |         |
| 8                       | EQ High Frequency | 500Hz~16.0kHz                        | 28-58 | table#3   |         |
| 9                       | EQ High Gain      | -12~+12dB                            | 52-76 |           |         |
| 10                      | Dry/Wet           | D63>W~D=W~D<W63                      | 1-127 |           |         |
| 11                      |                   |                                      |       |           |         |
| 12                      |                   |                                      |       |           |         |
| 13                      |                   |                                      |       |           |         |
| 14                      |                   |                                      |       |           |         |
| 15                      |                   |                                      |       |           |         |
| 16                      |                   |                                      |       |           |         |
| <b>TREMOLO</b>          |                   |                                      |       |           |         |
| 1                       | LFO Frequency     | 0.00~39.7Hz                          | 0-127 | table#1   | •       |
| 2                       | AM Depth          | 0~127                                | 0-127 |           |         |
| 3                       | PM Depth          | 0~127                                | 0-127 |           |         |
| 4                       |                   |                                      |       |           |         |
| 5                       |                   |                                      |       |           |         |
| 6                       | EQ Low Frequency  | 50Hz~2.0kHz                          | 8-40  | table#3   |         |
| 7                       | EQ Low Gain       | -12~+12dB                            | 52-76 |           |         |
| 8                       | EQ High Frequency | 500Hz~16.0kHz                        | 28-58 | table#3   |         |
| 9                       | EQ High Gain      | -12~+12dB                            | 52-76 |           |         |
| 10                      |                   |                                      |       |           |         |
| 11                      |                   |                                      |       |           |         |
| 12                      |                   |                                      |       |           |         |
| 13                      |                   |                                      |       |           |         |
| 14                      |                   | -180~+180deg                         | 4-124 |           |         |
| 15                      | Input Mode        | mono/stereo                          | 0-1   |           |         |
| 16                      |                   |                                      |       |           |         |
| <b>AUTO PAN</b>         |                   |                                      |       |           |         |
| 1                       | LFO Frequency     | 0.00~39.7Hz                          | 0-127 | table#1   | •       |
| 2                       | L/R Depth         | 0~127                                | 0-127 |           |         |
| 3                       | F/R Depth         | 0~127                                | 0-127 |           |         |
| 4                       | PAN Direction     | L<->R, L->R, L<-R, Lturn, Rturn, L/R | 0-5   |           |         |
| 5                       |                   |                                      |       |           |         |
| 6                       | EQ Low Frequency  | 50Hz~2.0kHz                          | 8-40  | table#3   |         |
| 7                       | EQ Low Gain       | -12~+12dB                            | 52-76 |           |         |
| 8                       | EQ High Frequency | 500Hz~16.0kHz                        | 28-58 | table#3   |         |
| 9                       | EQ High Gain      | -12~+12dB                            | 52-76 |           |         |
| 10                      |                   |                                      |       |           |         |
| 11                      |                   |                                      |       |           |         |
| 12                      |                   |                                      |       |           |         |
| 13                      |                   |                                      |       |           |         |
| 14                      |                   |                                      |       |           |         |
| 15                      |                   |                                      |       |           |         |
| 16                      |                   |                                      |       |           |         |
| <b>PHASER1, PHASER2</b> |                   |                                      |       |           |         |
| 1                       | LFO Frequency     | 0.00~39.7Hz                          | 0-127 | table#1   |         |
| 2                       | LFO Depth         | 0~127                                | 0-127 |           |         |
| 3                       | Phase Shift       | 0~127                                | 0-127 |           |         |
| 4                       | Feedback Level    | -63~+63                              | 1-127 |           |         |
| 5                       |                   |                                      |       |           |         |
| 6                       | EQ Low Frequency  | 50Hz~2.0kHz                          | 8-40  | table#3   |         |
| 7                       | EQ Low Gain       | -12~+12dB                            | 52-76 |           |         |
| 8                       | EQ High Frequency | 500Hz~16.0kHz                        | 28-58 | table#3   |         |
| 9                       | EQ High Gain      | -12~+12dB                            | 52-76 |           |         |
| 10                      | Dry/Wet           | D63>W~D=W~D<W63                      | 1-127 |           | •       |
| 11                      | Stage             | 3~10                                 | 3-10  |           |         |
| 12                      | Diffusion         | Mono/Stereo                          | 0-1   |           |         |
| 13                      | LFO Phase Di      | -180~+180deg                         | 4-124 |           |         |
| 14                      |                   |                                      |       |           |         |
| 15                      |                   |                                      |       |           |         |
| 16                      |                   |                                      |       |           |         |

• : Can be controlled by AC1 (Assignable Controller 1)  
 No.\* : These numbers correspond to the Parameter Suffix numbers in <Table 1-3>  
 See Table\*\* : Refer to "Effect Data Assign Table"

# MIDI Data Format

| No                           | Parameter         | Range                   | Value  | See Table   | Control |
|------------------------------|-------------------|-------------------------|--------|-------------|---------|
| <b>DISTORTION, OVERDRIVE</b> |                   |                         |        |             |         |
| 1                            | Drive             | 0~127                   | 0-127  |             | •       |
| 2                            | EQ Low Frequency  | 50Hz~2.0kHz             | 8-40   | table#3     |         |
| 3                            | EQ Low Gain       | -12~+12dB               | 52-76  |             |         |
| 4                            | LPF Cutoff        | 1.0k~Thru               | 34-60  | table#3     |         |
| 5                            | Output Level      | 0~127                   | 0-127  |             |         |
| 6                            |                   |                         |        |             |         |
| 7                            | EQ Mid Frequency  | 500Hz~10.0kHz           | 28-54  | table#3     |         |
| 8                            | EQ Mid Gain       | -12~+12dB               | 52-76  |             |         |
| 9                            | EQ Mid Width      | 1.0~12.0                | 10-120 |             |         |
| 10                           | Dry/Wet           | D63>W~D=W~D<W63         | 1-127  |             |         |
| 11                           | Edge (Clip Curve) | 0~127                   | 0-127  | mild ~sharp |         |
| 12                           |                   |                         |        |             |         |
| 13                           |                   |                         |        |             |         |
| 14                           |                   |                         |        |             |         |
| 15                           |                   |                         |        |             |         |
| 16                           |                   |                         |        |             |         |
| <b>GUITAR AMP SIMULATOR</b>  |                   |                         |        |             |         |
| 1                            | Drive             | 0~127                   | 0-127  |             | •       |
| 2                            | AMP Type          | Off, Stack, Combo, Tube | 0-3    |             |         |
| 3                            | LPF Cutoff        | 1.0k~Thru               | 34-60  | table#3     |         |
| 4                            | Output Level      | 0~127                   | 0-127  |             |         |
| 5                            |                   |                         |        |             |         |
| 6                            |                   |                         |        |             |         |
| 7                            |                   |                         |        |             |         |
| 8                            |                   |                         |        |             |         |
| 9                            |                   |                         |        |             |         |
| 10                           | Dry/Wet           | D63>W~D=W~D<W63         | 1-127  |             |         |
| 11                           | Edge (Clip Curve) | 0~127                   | 0-127  | mild ~sharp |         |
| 12                           |                   |                         |        |             |         |
| 13                           |                   |                         |        |             |         |
| 14                           |                   |                         |        |             |         |
| 15                           |                   |                         |        |             |         |
| 16                           |                   |                         |        |             |         |
| <b>3-BAND EQ</b>             |                   |                         |        |             |         |
| 1                            | EQ Low Gain       | -12~+12dB               | 52-76  |             |         |
| 2                            | EQ Mid Frequency  | 500Hz~10.0kHz           | 28-54  | table#3     |         |
| 3                            | EQ Mid Gain       | -12~+12dB               | 52-76  |             |         |
| 4                            | EQ Mid Width      | 1.0~12.0                | 10-120 |             |         |
| 5                            | EQ High Gain      | -12~+12dB               | 52-76  |             |         |
| 6                            | EQ Low Frequency  | 50Hz~2.0kHz             | 8-40   | table#3     |         |
| 7                            | EQ High Frequency | 500Hz~16.0kHz           | 28-58  | table#3     |         |
| 8                            |                   |                         |        |             |         |
| 9                            |                   |                         |        |             |         |
| 10                           |                   |                         |        |             |         |
| 11                           |                   |                         |        |             |         |
| 12                           |                   |                         |        |             |         |
| 13                           |                   |                         |        |             |         |
| 14                           |                   |                         |        |             |         |
| 15                           |                   |                         |        |             |         |
| 16                           |                   |                         |        |             |         |

| No               | Parameter         | Range           | Value  | See Table | Control |
|------------------|-------------------|-----------------|--------|-----------|---------|
| <b>2-BAND EQ</b> |                   |                 |        |           |         |
| 1                | EQ Low Frequency  | 50Hz~2.0kHz     | 8-40   | table#3   |         |
| 2                | EQ Low Gain       | -12~+12dB       | 52-76  |           |         |
| 3                | EQ High Frequency | 500Hz~16.0kHz   | 28-58  | table#3   |         |
| 4                | EQ High Gain      | -12~+12dB       | 52-76  |           |         |
| 5                |                   |                 |        |           |         |
| 6                |                   |                 |        |           |         |
| 7                |                   |                 |        |           |         |
| 8                |                   |                 |        |           |         |
| 9                |                   |                 |        |           |         |
| 10               |                   |                 |        |           |         |
| 11               | EQ Mid Frequency  | 100Hz~10.0kHz   | 14-54  | table#3   |         |
| 12               | EQ Mid Gain       | -12~+12dB       | 52-76  |           |         |
| 13               | EQ Mid Width      | 1.0~12.0        | 10-120 |           |         |
| 14               |                   |                 |        |           |         |
| 15               |                   |                 |        |           |         |
| 16               |                   |                 |        |           |         |
| <b>AUTO WAH</b>  |                   |                 |        |           |         |
| 1                | LFO Frequency     | 0.00~39.7Hz     | 0-127  | table#1   |         |
| 2                | LFO Depth         | 0~127           | 0-127  |           |         |
| 3                | Cutoff Frequency  | 0~127           | 0-127  |           | •       |
| 4                | Resonance         | 1.0~12.0        | 10-120 |           |         |
| 5                |                   |                 |        |           |         |
| 6                | EQ Low Frequency  | 50Hz~2.0kHz     | 8-40   | table#3   |         |
| 7                | EQ Low Gain       | -12~+12dB       | 52-76  |           |         |
| 8                | EQ High Frequency | 500Hz~16.0kHz   | 28-58  | table#3   |         |
| 9                | EQ High Gain      | -12~+12dB       | 52-76  |           |         |
| 10               | Dry/Wet           | D63>W~D=W~D<W63 | 1-127  |           |         |
| 11               |                   |                 |        |           |         |
| 12               |                   |                 |        |           |         |
| 13               |                   |                 |        |           |         |
| 14               |                   |                 |        |           |         |
| 15               |                   |                 |        |           |         |
| 16               |                   |                 |        |           |         |

• : Can be controlled by AC1 (Assignable Controller 1)  
 No.\* : These numbers correspond to the Parameter Suffix numbers in <Table 1-3>  
 See Table\*\* : Refer to "Effect Data Assign Table"



## Effect Data Assign Table

Table#1

LFO Frequency (Hz)

| Data | Value | Data | Value | Data | Value |
|------|-------|------|-------|------|-------|
| 0    | 0.00  | 43   | 1.81  | 86   | 5.38  |
| 1    | 0.04  | 44   | 1.85  | 87   | 5.55  |
| 2    | 0.08  | 45   | 1.89  | 88   | 5.72  |
| 3    | 0.13  | 46   | 1.94  | 89   | 6.06  |
| 4    | 0.17  | 47   | 1.98  | 90   | 6.39  |
| 5    | 0.21  | 48   | 2.02  | 91   | 6.73  |
| 6    | 0.25  | 49   | 2.06  | 92   | 7.07  |
| 7    | 0.29  | 50   | 2.10  | 93   | 7.40  |
| 8    | 0.34  | 51   | 2.15  | 94   | 7.74  |
| 9    | 0.38  | 52   | 2.19  | 95   | 8.08  |
| 10   | 0.42  | 53   | 2.23  | 96   | 8.41  |
| 11   | 0.46  | 54   | 2.27  | 97   | 8.75  |
| 12   | 0.51  | 55   | 2.31  | 98   | 9.08  |
| 13   | 0.55  | 56   | 2.36  | 99   | 9.42  |
| 14   | 0.59  | 57   | 2.40  | 100  | 9.76  |
| 15   | 0.63  | 58   | 2.44  | 101  | 10.10 |
| 16   | 0.67  | 59   | 2.48  | 102  | 10.80 |
| 17   | 0.72  | 60   | 2.52  | 103  | 11.40 |
| 18   | 0.76  | 61   | 2.57  | 104  | 12.10 |
| 19   | 0.80  | 62   | 2.61  | 105  | 12.80 |
| 20   | 0.84  | 63   | 2.65  | 106  | 13.50 |
| 21   | 0.88  | 64   | 2.69  | 107  | 14.10 |
| 22   | 0.93  | 65   | 2.78  | 108  | 14.80 |
| 23   | 0.97  | 66   | 2.86  | 109  | 15.50 |
| 24   | 1.01  | 67   | 2.94  | 110  | 16.20 |
| 25   | 1.05  | 68   | 3.03  | 111  | 16.80 |
| 26   | 1.09  | 69   | 3.11  | 112  | 17.50 |
| 27   | 1.14  | 70   | 3.20  | 113  | 18.20 |
| 28   | 1.18  | 71   | 3.28  | 114  | 19.50 |
| 29   | 1.22  | 72   | 3.37  | 115  | 20.90 |
| 30   | 1.26  | 73   | 3.45  | 116  | 22.20 |
| 31   | 1.30  | 74   | 3.53  | 117  | 23.60 |
| 32   | 1.35  | 75   | 3.62  | 118  | 24.90 |
| 33   | 1.39  | 76   | 3.70  | 119  | 26.20 |
| 34   | 1.43  | 77   | 3.87  | 120  | 27.60 |
| 35   | 1.47  | 78   | 4.04  | 121  | 28.90 |
| 36   | 1.51  | 79   | 4.21  | 122  | 30.30 |
| 37   | 1.56  | 80   | 4.37  | 123  | 31.60 |
| 38   | 1.60  | 81   | 4.54  | 124  | 33.00 |
| 39   | 1.64  | 82   | 4.71  | 125  | 34.30 |
| 40   | 1.68  | 83   | 4.88  | 126  | 37.00 |
| 41   | 1.72  | 84   | 5.05  | 127  | 39.70 |
| 42   | 1.77  | 85   | 5.22  |      |       |

Table#2

Modulation Delay Offset (ms)

| Data | Value | Data | Value | Data | Value |
|------|-------|------|-------|------|-------|
| 0    | 0.0   | 43   | 4.3   | 86   | 8.6   |
| 1    | 0.1   | 44   | 4.4   | 87   | 8.7   |
| 2    | 0.2   | 45   | 4.5   | 88   | 8.8   |
| 3    | 0.3   | 46   | 4.6   | 89   | 8.9   |
| 4    | 0.4   | 47   | 4.7   | 90   | 9.0   |
| 5    | 0.5   | 48   | 4.8   | 91   | 9.1   |
| 6    | 0.6   | 49   | 4.9   | 92   | 9.2   |
| 7    | 0.7   | 50   | 5.0   | 93   | 9.3   |
| 8    | 0.8   | 51   | 5.1   | 94   | 9.4   |
| 9    | 0.9   | 52   | 5.2   | 95   | 9.5   |
| 10   | 1.0   | 53   | 5.3   | 96   | 9.6   |
| 11   | 1.1   | 54   | 5.4   | 97   | 9.7   |
| 12   | 1.2   | 55   | 5.5   | 98   | 9.8   |
| 13   | 1.3   | 56   | 5.6   | 99   | 9.9   |
| 14   | 1.4   | 57   | 5.7   | 100  | 10.0  |
| 15   | 1.5   | 58   | 5.8   | 101  | 11.1  |
| 16   | 1.6   | 59   | 5.9   | 102  | 12.2  |
| 17   | 1.7   | 60   | 6.0   | 103  | 13.3  |
| 18   | 1.8   | 61   | 6.1   | 104  | 14.4  |
| 19   | 1.9   | 62   | 6.2   | 105  | 15.5  |
| 20   | 2.0   | 63   | 6.3   | 106  | 17.1  |
| 21   | 2.1   | 64   | 6.4   | 107  | 18.6  |
| 22   | 2.2   | 65   | 6.5   | 108  | 20.2  |
| 23   | 2.3   | 66   | 6.6   | 109  | 21.8  |
| 24   | 2.4   | 67   | 6.7   | 110  | 23.3  |
| 25   | 2.5   | 68   | 6.8   | 111  | 24.9  |
| 26   | 2.6   | 69   | 6.9   | 112  | 26.5  |
| 27   | 2.7   | 70   | 7.0   | 113  | 28.0  |
| 28   | 2.8   | 71   | 7.1   | 114  | 29.6  |
| 29   | 2.9   | 72   | 7.2   | 115  | 31.2  |
| 30   | 3.0   | 73   | 7.3   | 116  | 32.8  |
| 31   | 3.1   | 74   | 7.4   | 117  | 34.3  |
| 32   | 3.2   | 75   | 7.5   | 118  | 35.9  |
| 33   | 3.3   | 76   | 7.6   | 119  | 37.5  |
| 34   | 3.4   | 77   | 7.7   | 120  | 39.0  |
| 35   | 3.5   | 78   | 7.8   | 121  | 40.6  |
| 36   | 3.6   | 79   | 7.9   | 122  | 42.2  |
| 37   | 3.7   | 80   | 8.0   | 123  | 43.7  |
| 38   | 3.8   | 81   | 8.1   | 124  | 45.3  |
| 39   | 3.9   | 82   | 8.2   | 125  | 46.9  |
| 40   | 4.0   | 83   | 8.3   | 126  | 48.4  |
| 41   | 4.1   | 84   | 8.4   | 127  | 50.0  |
| 42   | 4.2   | 85   | 8.5   |      |       |

Table#3

EQ Frequency (Hz)

| Data | Value    | Data | Value       |
|------|----------|------|-------------|
| 0    | THRU(20) | 43   | 2.8k        |
| 1    | 22       | 44   | 3.2k        |
| 2    | 25       | 45   | 3.6k        |
| 3    | 28       | 46   | 4.0k        |
| 4    | 32       | 47   | 4.5k        |
| 5    | 36       | 48   | 5.0k        |
| 6    | 40       | 49   | 5.6k        |
| 7    | 45       | 50   | 6.3k        |
| 8    | 50       | 51   | 7.0k        |
| 9    | 56       | 52   | 8.0k        |
| 10   | 63       | 53   | 9.0k        |
| 11   | 70       | 54   | 10.0k       |
| 12   | 80       | 55   | 11.0k       |
| 13   | 90       | 56   | 12.0k       |
| 14   | 100      | 57   | 14.0k       |
| 15   | 110      | 58   | 16.0k       |
| 16   | 125      | 59   | 18.0k       |
| 17   | 140      | 60   | THRU(20.0k) |
| 18   | 160      |      |             |
| 19   | 180      |      |             |
| 20   | 200      |      |             |
| 21   | 225      |      |             |
| 22   | 250      |      |             |
| 23   | 280      |      |             |
| 24   | 315      |      |             |
| 25   | 355      |      |             |
| 26   | 400      |      |             |
| 27   | 450      |      |             |
| 28   | 500      |      |             |
| 29   | 560      |      |             |
| 30   | 630      |      |             |
| 31   | 700      |      |             |
| 32   | 800      |      |             |
| 33   | 900      |      |             |
| 34   | 1.0k     |      |             |
| 35   | 1.1k     |      |             |
| 36   | 1.2k     |      |             |
| 37   | 1.4k     |      |             |
| 38   | 1.6k     |      |             |
| 39   | 1.8k     |      |             |
| 40   | 2.0k     |      |             |
| 41   | 2.2k     |      |             |
| 42   | 2.5k     |      |             |

Table#4

Reverb Time (ms)

| Data | Value | Data | Value |
|------|-------|------|-------|
| 0    | 0.3   | 43   | 4.6   |
| 1    | 0.4   | 44   | 4.7   |
| 2    | 0.5   | 45   | 4.8   |
| 3    | 0.6   | 46   | 4.9   |
| 4    | 0.7   | 47   | 5.0   |
| 5    | 0.8   | 48   | 5.5   |
| 6    | 0.9   | 49   | 6.0   |
| 7    | 1.0   | 50   | 6.5   |
| 8    | 1.1   | 51   | 7.0   |
| 9    | 1.2   | 52   | 7.5   |
| 10   | 1.3   | 53   | 8.0   |
| 11   | 1.4   | 54   | 8.5   |
| 12   | 1.5   | 55   | 9.0   |
| 13   | 1.6   | 56   | 9.5   |
| 14   | 1.7   | 57   | 10.0  |
| 15   | 1.8   | 58   | 11.0  |
| 16   | 1.9   | 59   | 12.0  |
| 17   | 2.0   | 60   | 13.0  |
| 18   | 2.1   | 61   | 14.0  |
| 19   | 2.2   | 62   | 15.0  |
| 20   | 2.3   | 63   | 16.0  |
| 21   | 2.4   | 64   | 17.0  |
| 22   | 2.5   | 65   | 18.0  |
| 23   | 2.6   | 66   | 19.0  |
| 24   | 2.7   | 67   | 20.0  |
| 25   | 2.8   | 68   | 25.0  |
| 26   | 2.9   | 69   | 30.0  |
| 27   | 3.0   |      |       |
| 28   | 3.1   |      |       |
| 29   | 3.2   |      |       |
| 30   | 3.3   |      |       |
| 31   | 3.4   |      |       |
| 32   | 3.5   |      |       |
| 33   | 3.6   |      |       |
| 34   | 3.7   |      |       |
| 35   | 3.8   |      |       |
| 36   | 3.9   |      |       |
| 37   | 4.0   |      |       |
| 38   | 4.1   |      |       |
| 39   | 4.2   |      |       |
| 40   | 4.3   |      |       |
| 41   | 4.4   |      |       |
| 42   | 4.5   |      |       |

Table#5

Delay Time (ms)

| Data | Value | Data | Value | Data | Value |
|------|-------|------|-------|------|-------|
| 0    | 0.1   | 43   | 67.8  | 86   | 135.5 |
| 1    | 1.7   | 44   | 69.4  | 87   | 137.0 |
| 2    | 3.2   | 45   | 70.9  | 88   | 138.6 |
| 3    | 4.8   | 46   | 72.5  | 89   | 140.2 |
| 4    | 6.4   | 47   | 74.1  | 90   | 141.8 |
| 5    | 8.0   | 48   | 75.7  | 91   | 143.3 |
| 6    | 9.5   | 49   | 77.2  | 92   | 144.9 |
| 7    | 11.1  | 50   | 78.8  | 93   | 146.5 |
| 8    | 12.7  | 51   | 80.4  | 94   | 148.1 |
| 9    | 14.3  | 52   | 81.9  | 95   | 149.6 |
| 10   | 15.8  | 53   | 83.5  | 96   | 151.2 |
| 11   | 17.4  | 54   | 85.1  | 97   | 152.8 |
| 12   | 19.0  | 55   | 86.7  | 98   | 154.4 |
| 13   | 20.6  | 56   | 88.2  | 99   | 155.9 |
| 14   | 22.1  | 57   | 89.8  | 100  | 157.5 |
| 15   | 23.7  | 58   | 91.4  | 101  | 159.1 |
| 16   | 25.3  | 59   | 93.0  | 102  | 160.6 |
| 17   | 26.9  | 60   | 94.5  | 103  | 162.2 |
| 18   | 28.4  | 61   | 96.1  | 104  | 163.8 |
| 19   | 30.0  | 62   | 97.7  | 105  | 165.4 |
| 20   | 31.6  | 63   | 99.3  | 106  | 166.9 |
| 21   | 33.2  | 64   | 100.8 | 107  | 168.5 |
| 22   | 34.7  | 65   | 102.4 | 108  | 170.1 |
| 23   | 36.3  | 66   | 104.0 | 109  | 171.7 |
| 24   | 37.9  | 67   | 105.6 | 110  | 173.2 |
| 25   | 39.5  | 68   | 107.1 | 111  | 174.8 |
| 26   | 41.0  | 69   | 108.7 | 112  | 176.4 |
| 27   | 42.6  | 70   | 110.3 | 113  | 178.0 |
| 28   | 44.2  | 71   | 111.9 | 114  | 179.5 |
| 29   | 45.7  | 72   | 113.4 | 115  | 181.1 |
| 30   | 47.3  | 73   | 115.0 | 116  | 182.7 |
| 31   | 48.9  | 74   | 116.6 | 117  | 184.3 |
| 32   | 50.5  | 75   | 118.2 | 118  | 185.8 |
| 33   | 52.0  | 76   | 119.7 | 119  | 187.4 |
| 34   | 53.6  | 77   | 121.3 | 120  | 189.0 |
| 35   | 55.2  | 78   | 122.9 | 121  | 190.6 |
| 36   | 56.8  | 79   | 124.4 | 122  | 192.1 |
| 37   | 58.3  | 80   | 126.0 | 123  | 193.7 |
| 38   | 59.9  | 81   | 127.6 | 124  | 195.3 |
| 39   | 61.5  | 82   | 129.2 | 125  | 196.9 |
| 40   | 63.1  | 83   | 130.7 | 126  | 198.4 |
| 41   | 64.6  | 84   | 132.3 | 127  | 200.0 |
| 42   | 66.2  | 85   | 133.9 |      |       |

Table#6

Room Size (m)

| Data | Value | Data | Value |
|------|-------|------|-------|
| 0    | 0.1   | 43   | 6.8   |
| 1    | 0.3   | 44   | 7.0   |
| 2    | 0.4   |      |       |
| 3    | 0.6   |      |       |
| 4    | 0.7   |      |       |
| 5    | 0.9   |      |       |
| 6    | 1.0   |      |       |
| 7    | 1.2   |      |       |
| 8    | 1.4   |      |       |
| 9    | 1.5   |      |       |
| 10   | 1.7   |      |       |
| 11   | 1.8   |      |       |
| 12   | 2.0   |      |       |
| 13   | 2.1   |      |       |
| 14   | 2.3   |      |       |
| 15   | 2.5   |      |       |
| 16   | 2.6   |      |       |
| 17   | 2.8   |      |       |
| 18   | 2.9   |      |       |
| 19   | 3.1   |      |       |
| 20   | 3.2   |      |       |
| 21   | 3.4   |      |       |
| 22   | 3.5   |      |       |
| 23   | 3.7   |      |       |
| 24   | 3.9   |      |       |
| 25   | 4.0   |      |       |
| 26   | 4.2   |      |       |
| 27   | 4.3   |      |       |
| 28   | 4.5   |      |       |
| 29   | 4.6   |      |       |
| 30   | 4.8   |      |       |
| 31   | 5.0   |      |       |
| 32   | 5.1   |      |       |
| 33   | 5.3   |      |       |
| 34   | 5.4   |      |       |
| 35   | 5.6   |      |       |
| 36   | 5.7   |      |       |
| 37   | 5.9   |      |       |
| 38   | 6.1   |      |       |
| 39   | 6.2   |      |       |
| 40   | 6.4   |      |       |
| 41   | 6.5   |      |       |
| 42   | 6.7   |      |       |

Table#7

Delay Time (ms)

| Data | Value | Data | Value | Data | Value |
|------|-------|------|-------|------|-------|
| 0    | 0.1   | 43   | 135.5 | 86   | 270.9 |
| 1    | 3.2   | 44   | 138.6 | 87   | 274.0 |
| 2    | 6.4   | 45   | 141.8 | 88   | 277.2 |
| 3    | 9.5   | 46   | 144.9 | 89   | 280.3 |
| 4    | 12.7  | 47   | 148.1 | 90   | 283.5 |
| 5    | 15.8  | 48   | 151.2 | 91   | 286.6 |
| 6    | 19.0  | 49   | 154.4 | 92   | 289.8 |
| 7    |       |      |       |      |       |

# MIDI IMPLEMENTATION CHART

Yamaha Disklavier Control Unit  
Model: DKC-850

Date: 18-Mar-2011  
Version: 3.10

| Function...              | Transmitted   | Recognized         | Remarks            |
|--------------------------|---|--------------------|--------------------|
| Basic Default            | 1-16  | 1-16               | Memorized          |
| Channel Changed          | 1-16  | 1-16               |                    |
| Mode Default             | 3   | 3                  |                    |
| Messages                 | x   | 3, 4 (m=1) *2, *3  |                    |
| Altered                  | *****   | x                  |                    |
| Note Number : True voice | 0-127<br>*****  | 0-127<br>0-127     |                    |
| Velocity Note ON         | o 9nH, v=1-127  | o v=1-127          |                    |
| Note OFF                 | o 8nH, v=0-127  | o                  |                    |
| After Key's              | o *5  | o                  |                    |
| Touch Ch's               | x   | o *1, *2           |                    |
| Pitch Bend               | x   | o 0-24 semi *1, *2 |                    |
| Control 0, 32            | o   | o *1, *2           | Bank Select        |
| 7, 11                    | o   | o *1               |                    |
| 1, 5, 10                 | x   | o *1, *2           | Data Entry         |
| 6, 38                    | x   | o *2               |                    |
| 64                       | o   | o                  | Hold1 (Sustain)    |
| Control 65               | x   | o *2               | Portament          |
| 66                       | o *4  | o *2               | Sostenuto          |
| Change 67                | o   | o                  | Soft (Shift) Pedal |
| 71-74, 84                | x   | o *2               | Effect Depth       |
| 91, 93, 94               | x   | o *2               |                    |
| 96-101                   | x   | o *1, *2           |                    |
| Prog Change : True #     | o 0-127<br>*****  | o 0-127 *2         |                    |
| System Exclusive         | o   | o                  |                    |
| : Song Pos               | x   | x                  |                    |
| Common : Song Sel        | x   | x                  |                    |
| : Tune                   | x   | x                  |                    |
| System : Clock           | x   | x                  |                    |
| Real Time : Commands     | x   | x                  |                    |
| Aux : All Sound OFF      | o   | o (120, 126, 127)  |                    |
| : Reset All Cntrls       | x   | o (121)            |                    |
| : Local ON/OFF           | x   | o                  |                    |
| : All Notes OFF          | o   | o (123-125)        |                    |
| Messages : Active Sense  | o   | o                  |                    |
| : Reset                  | x   | x                  |                    |
| Notes                    | *1 = Received (transmitted) if switch is on.<br>*2 = Only ESBL Part can be recognized.<br>*3 = m is always treated as 1 regardless of its value.<br>*4 = Transmit if this model has a Sostenuto Pedal.<br>*5 = Applying further pressure on the key does not output key aftertouch information. Instead, key position is transmitted as additional information. |                    |                    |

Mode 1 : OMNI ON. POLY  
Mode 3 : OMNI OFF. POLY

Mode 2 : OMNI ON. MONO  
Mode 4 : OMNI OFF. MONO

o : YES  
x : NO

